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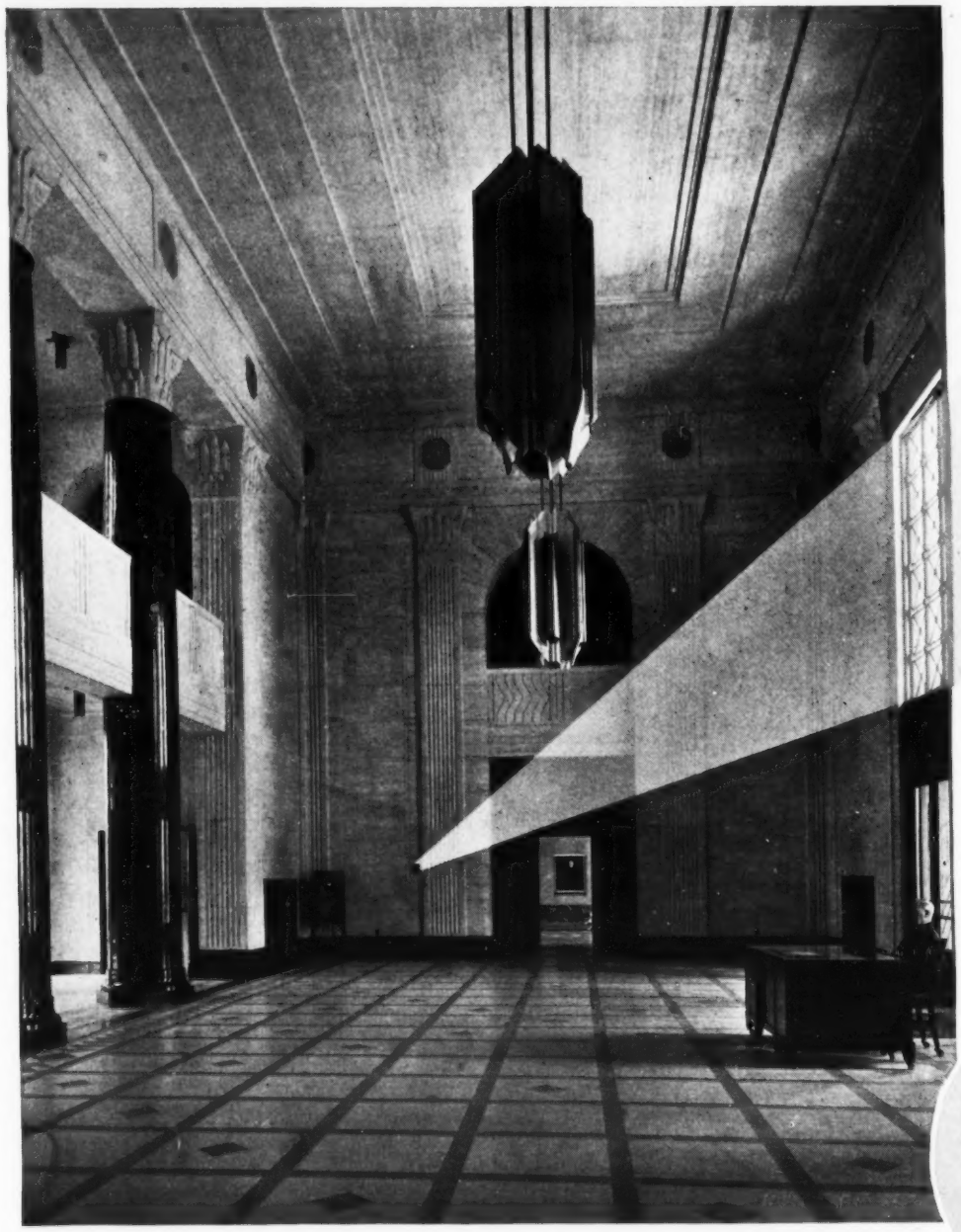
THE AMERICAN School Board Journal

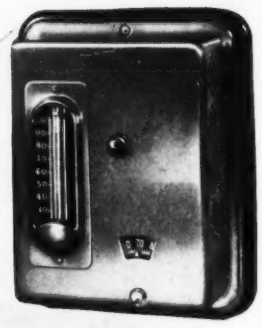
A PERIODICAL of SCHOOL ADMINISTRATION

THE BRUCE PUBLISHING COMPANY
MILWAUKEE
NEW YORK CHICAGO

IN THIS ISSUE:

NORTH CAROLINA'S STATE SUPPORTED SCHOOL SYSTEM—J. H. HIGHSMITH





JOHNSON AUTOMATIC HEAT CONTROL

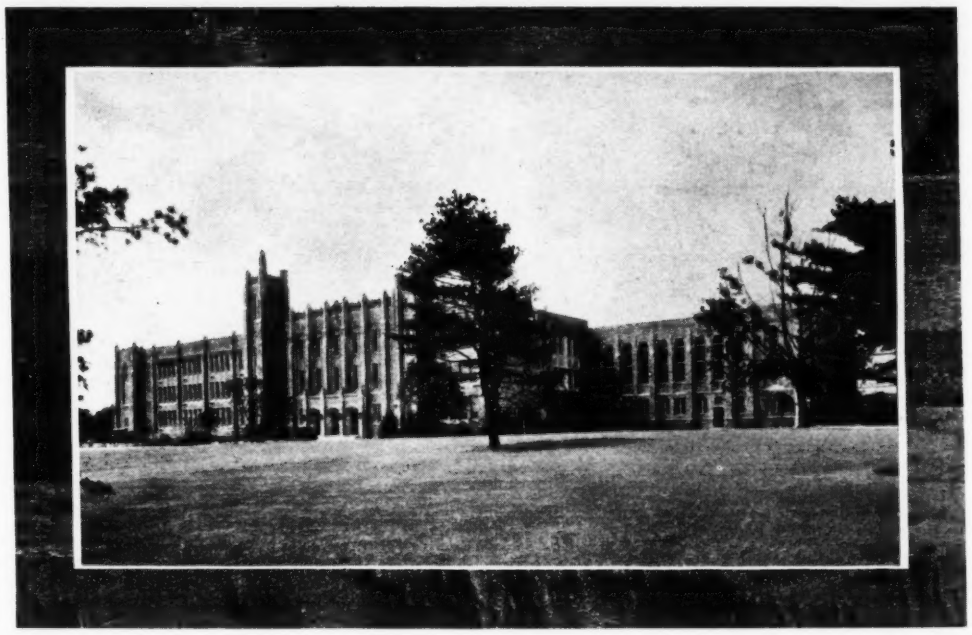
JOSLYN MEMORIAL, *Omaha, Nebraska*, JOHN McDONALD & ALAN McDONALD, *architects; Engineering Service Company, mechanical engineers, Omaha, Nebraska*

For Protection and Economy!

ECONOMY, COMFORT, CONVENIENCE! Those are the results usually sought when automatic temperature control apparatus is considered. Incidentally, those are the results attained when the regulation equipment is JOHNSON. But beyond that, there are many instances where accurate dependable control of temperature and humidity is essential for *protection*. Museums, art galleries, and certain industrial processes are examples of such applications, where exhibits and products must be protected against insufficient or excessive temperatures and humidities. . . . In the beautiful Joslyn Memorial, a gallery of valuable art treasures, some 120 JOHNSON *dual* thermostats operate JOHNSON valves on 244 direct radiators. A comfortable temperature during occupancy periods and a safe, reduced temperature at other times! Humidifying and ventilating are JOHNSON controlled, as well.

JOHNSON SYLPHON RADIATOR VALVE

JOHNSON SERVICE COMPANY: Milwaukee, Wis. and Direct Branches in all Principal Cities



White Plains High School
White Plains, N. Y.

STARRETT and VAN VLECK
Architects
267 Fifth Ave., New York City

MAPLE *for Classrooms — Study Halls — Sewing Rooms Art Rooms — Science Rooms — Shops — Auditoriums and Gymnasiums*

Few problems in school construction require deeper consideration than that of selecting the material for floors. How will the flooring affect school room routine—the health and efficiency of pupils? Will it be an economy over a period of years? How easily can it be kept clean? Will it provide firm anchorage for desks? Will it simplify or hinder other construction work? These are some of the questions that must be asked—and answered.

Fortunately, one flooring material gives the proper answer to all these questions, *Northern Hard Maple*—the flooring material that combines warm, dry, cushioning effect beneath the feet, with lasting wear and smoothness.

Northern Hard Maple is resilient, tough-fibred, tight-grained. It will not sliver, splinter or develop ridges when subjected to the scuffing and pounding of youthful feet. It actually outwears stone! Maple, moreover, is exceptionally easy to keep clean. Its smooth surface offers no lodging spaces for dirt and dust.

Consider these advantages of Northern Hard Maple. Consider, too, the fact that it provides firm anchorage for desks and does not interfere with other construction work. Get all the facts about this unique flooring material. Consult your architect.

"In selecting the flooring material for class rooms, study halls, sewing rooms, art rooms, science rooms, shops, auditoriums and gymnasiums of the White Plains High School, we decided on the highest grade of Hard Maple obtainable.
From our experience over years, we have found that Hard Maple has proven more durable than other wood floors, denser, and if properly cared for, is easy to maintain.
If properly cared for, Hard Maple should continue to give satisfactory service for many years. For these reasons, we regard Hard Maple Flooring as an excellent material to use."

STARRETT AND VAN VLECK,
Architects.
By: **H. M. Hathaway.**

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The letters **MFMA** on Maple, Beech or Birch Flooring signify that the flooring is standardized and guaranteed by the Maple Flooring Manufacturers Association, whose members must attain and maintain the highest standards of manufacture and adhere to manufacturing and grading rules which economically conserve these remarkable woods. This trade-mark is for your protection. Look for it on the flooring you use. **MFMA**

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See our advertisement Sec., 15/50 in Sweet's.

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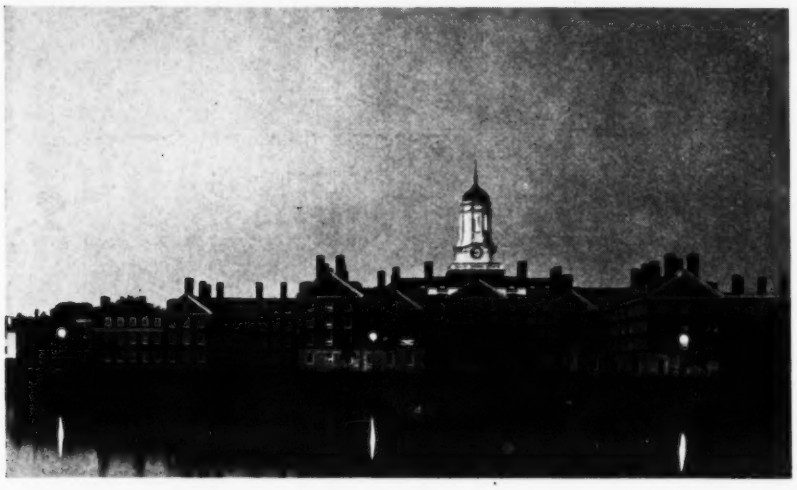
Dunster House, Harvard University, which has a Telechron ADFR (automatic double frequency reset) system consisting of four 9-foot, skeleton-dial tower clocks and four special indoor clocks. These clocks are part of a comprehensive interconnected Telechron system, which includes six complete Telechron ADFR clock systems. *Coolidge, Shepley, Bulfinch & Abbot, Boston, Mass., architects; Hixon Electric Company, Boston, Mass., electrical contractors.*



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Quiet Telechron electric clock systems are regulating academic schedules accurately and precisely all over the country. In school and college buildings—both new and modernized—these dependable clock systems are giving sure, economical service.

Each Telechron clock is a sturdy, independent timekeeper, which can be installed as a single unit or as part of a complete system with central control equipment. The original cost of a Telechron system is low—maintenance and operating costs have proved to be negligible.

The two installations shown here are representative of the widespread use of Telechron electric clock systems. If you are planning to install modern timekeeping equipment, a letter to us will bring one of our representatives to discuss your problem with you, with absolutely no obligation on your part.

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Far Rockaway High School, Far Rockaway, New York, has a Telechron installation consisting of 15 single-face clocks, 13 double-face clocks, and a 6-circuit program instrument. *W. C. Martin, Board of Education, architect; Fischbach and Moore, New York City, electrical contractors.*

This emergency lighting system spells safety for your school

WHEN the lights suddenly go out in a crowded auditorium, people often act hastily . . . unwisely. There is a tendency to crowd toward the exits. Panic and personal injury may result, and there is always the danger of fire.

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There is an Exide System for as little as $150. Write for bulletin on Exide Emergency Lighting.

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Refer to Sweet's Catalogue, Section 27—Page 1

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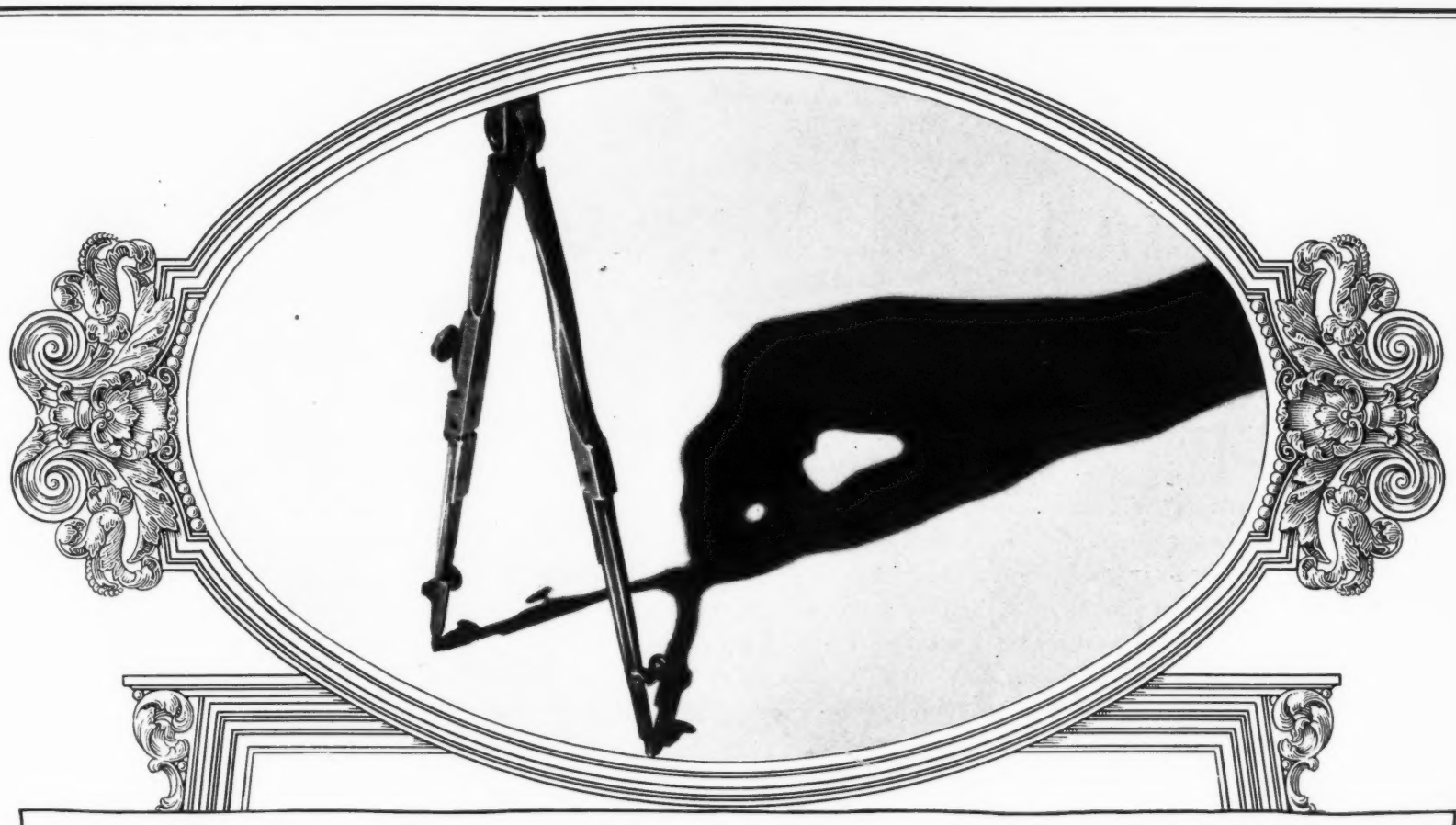

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HERMAN NELSON CORPORATION READY TO SERVE

THE President, during the past few weeks, has approved allotments to finance thousands of PWA projects. A very large percentage of these projects are public school buildings. In order that the President's stipulations regarding construction schedules may be met, school authorities and their architects and engineers will be very busy during the next few months. In spite of the many things to be done during the short time available, these school authorities, architects and engineers will wish to give careful consideration to the air conditioning problems which the construction of these schools presents. • The Herman Nelson Corporation offers the co-operation of its entire organization in this work. Its representatives throughout the country are at the service of those responsible for the air conditioning of these schools. Each of these representatives is a specialist in school classroom air conditioning. All but a few of them spend their entire time in this class of work. On these pages we list them with their addresses. Any school authority, architect or engineer who desires the assistance and co-operation of this organization is requested to get in touch with the nearest representative, or with the Home Office at Moline, Illinois.

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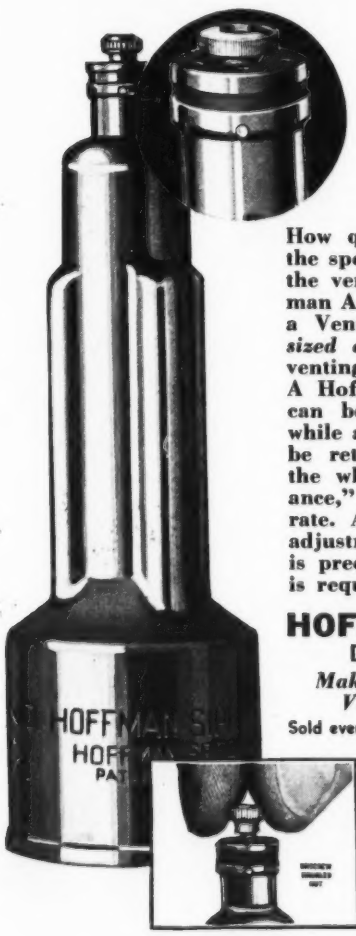

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No other INVESTMENT Pays Larger Dividends

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40 Years of Specialization in Temperature Control

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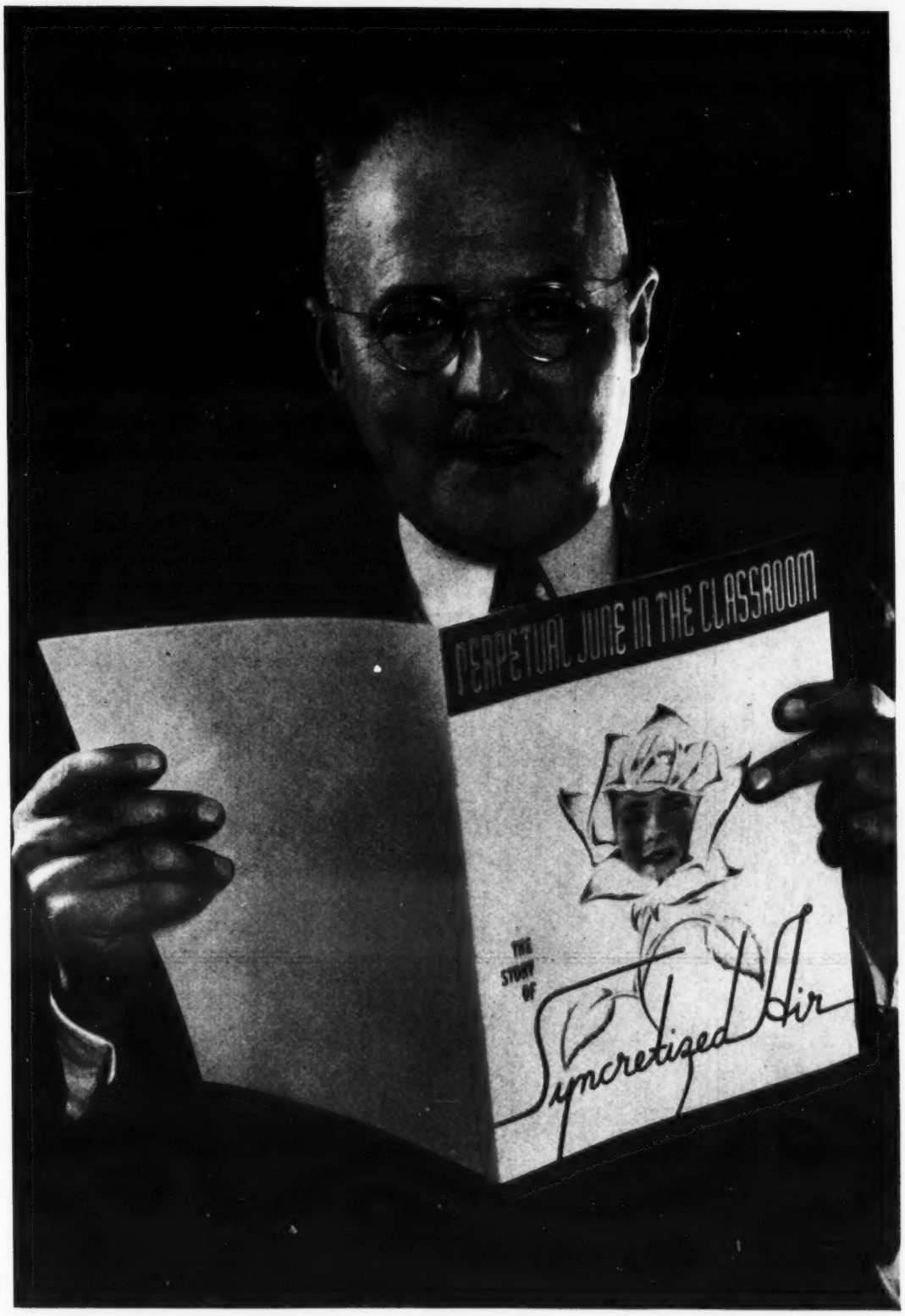
"I'm only one of the Board,

and maybe the other members know more about it than I did, but I'll confess that this business of schoolroom heating and ventilating was all Greek to me—I didn't know an 'air-stream' from the Gulf Stream—until Nesbitt's new booklet came along.

"Now the subject is pretty clear. I realize more than ever the importance of constant ventilation in the classroom; I understand the problems to be overcome in preventing cold drafts and overheating; and I see how Nesbitts have licked them with their Syncretizer units. Even that jaw-breaking name, *Syncretizer*, means something to me now: 'Controlled harmony of air-stream and room temperatures, and greatest economy with today's laws and tomorrow's.'

"So, when we take up the subject of ventilating units for our new school, I'm voting—*Nesbitt!*

"By the way, if you haven't seen this new booklet, get one! It's free. Use the coupon."



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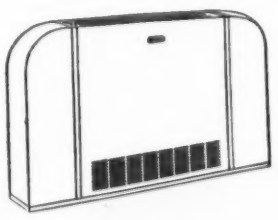

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Please send me "The Story of Syncretized Air"

Name .....

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Fill out and mail this coupon now, or ask your secretary to do so.

» » » I KNOW

I know a man who spent years in developing a fine trucking business. He sold his business. To avoid the expenses of an attorney to execute a binding contract of sale with scrutinized security, he had a layman do the job. Today he has neither his trucking business, his security, nor his money.

I know a neighbor who had some expensive shrubbery to transplant. The landscape man's estimate was considered too high. A handy man was hired to do the job, an expensive job when the amount of dead shrubbery is considered.

I know a man who bought a suit of clothes on the measure yourself plan. He wore the suit once.

I know a school superintendent who requested assistance in locating a manufacturer whose representative had given him a real buy. The Superintendent's money is gone. So is the agent. The manufacturer is not listed in the telephone directory.

I know that during the course of a year several people call at this office to give away something free. When they use the word free the interview terminates. I am afraid of that trap word free.

There are those who are constantly being deceived by buying from unknown sources. There are others who refuse to buy except from established concerns.

I know an established school supply distributor in every territory who is ready both to sell and service the school purchaser.

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He is there when the Board of Education wants sixty to ninety days on its purchases.

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Room 312, Palmer House, Shop Section

CHICAGO

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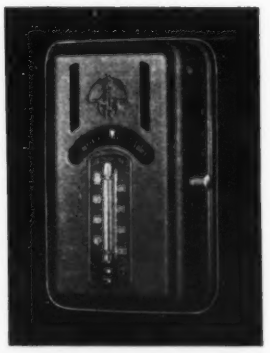

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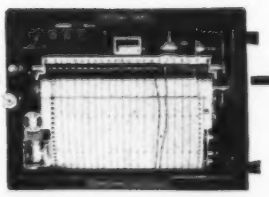

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Gives the engineer a continuous record and constant check on temperature conditions in various key locations throughout the building, permitting the most economical regulation.

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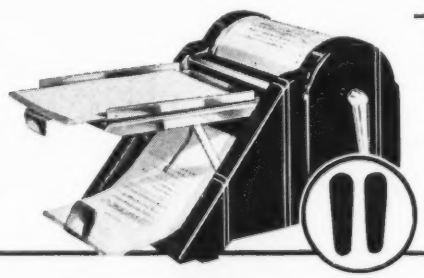

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VOL. 91
No. 5

NOVEMBER,
1935

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Progress in Schoolhouse Construction

When the Federal government, something over a year ago, offered to render assistance in financing the construction of new school buildings, there was considerable reluctance on the part of school officials to avail themselves of the offer.

There were, of course, considerations, which had to be studied. The 30-per cent grant was an inducement, but a bond issue for the other 70 per cent had to be submitted to the voters for approval. Then, too, school officials were not quite ready to appear before the PWA authorities with the required plans and specifications.

When the Federal government renewed its offer this year in a more liberal form, namely, extending a grant of 45 per cent and offering to accept long-term bonds for the other 55 per cent on 4-per cent basis, many boards of education began to manifest an active interest.

And here most gratifying news comes to the surface. Up to August 1, 1935, the number of school projects completed, under the PWA, has reached the figure of 349, at a total estimated cost of $29,261,655. They include 245 elementary schools, 40 high schools, 3 colleges and universities, 12 school auditoriums, 5 gymnasiums, 9 dormitories, and 34 miscellaneous school projects.

Of the 644 non-Federal educational projects now under consideration, more than half will be for elementary schools, and more than a hundred high schools are included. These will involve an expenditure of over $170,000,000. All this is included in the original PWA allotments for non-federal educational institutions under the $3,300,000,000 FERA appropriations.

Now under the later appropriation, namely the $4,000,000,000 work-relief program, 1,931 additional school projects have been approved. Thus the total allotments of federal loans and grants for school projects through PWA and WPA to October 1st, aggregate the sum of over $4,000,000,000 in new school construction.

In contemplating the school-building projects for this and next year, it may be said that if the activities now engaged in by school authorities in preparatory labors looking toward federal support will fully equal the number of PWA projects now approved and in course of construction.

Everywhere the school authorities stand ready to avail themselves of federal support. The outlook, therefore, for a general revival in the construction of new school buildings throughout the United States is a most promising one.

THE EDITOR

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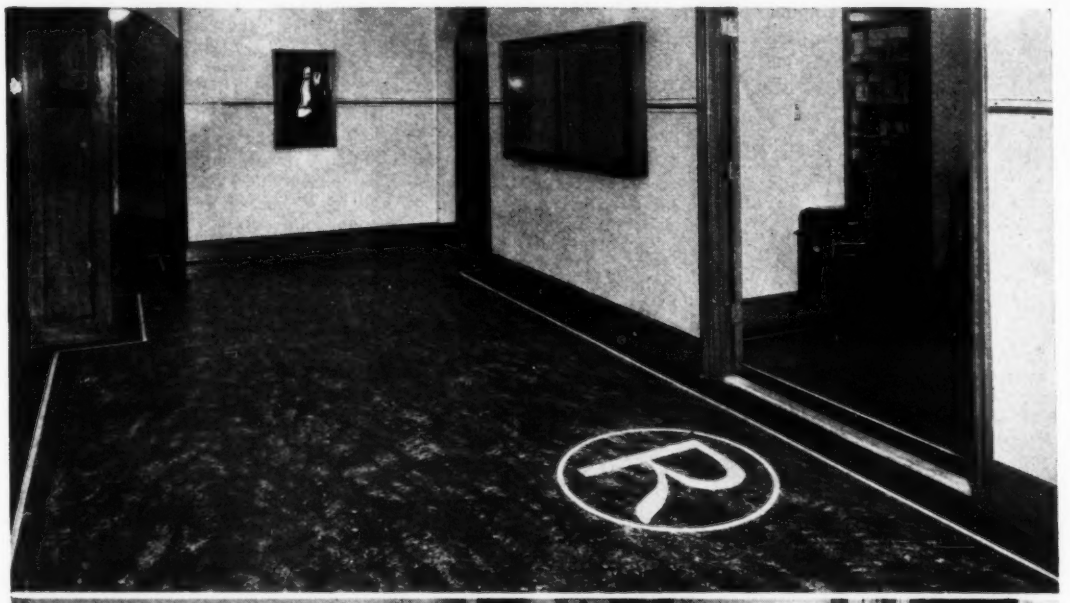

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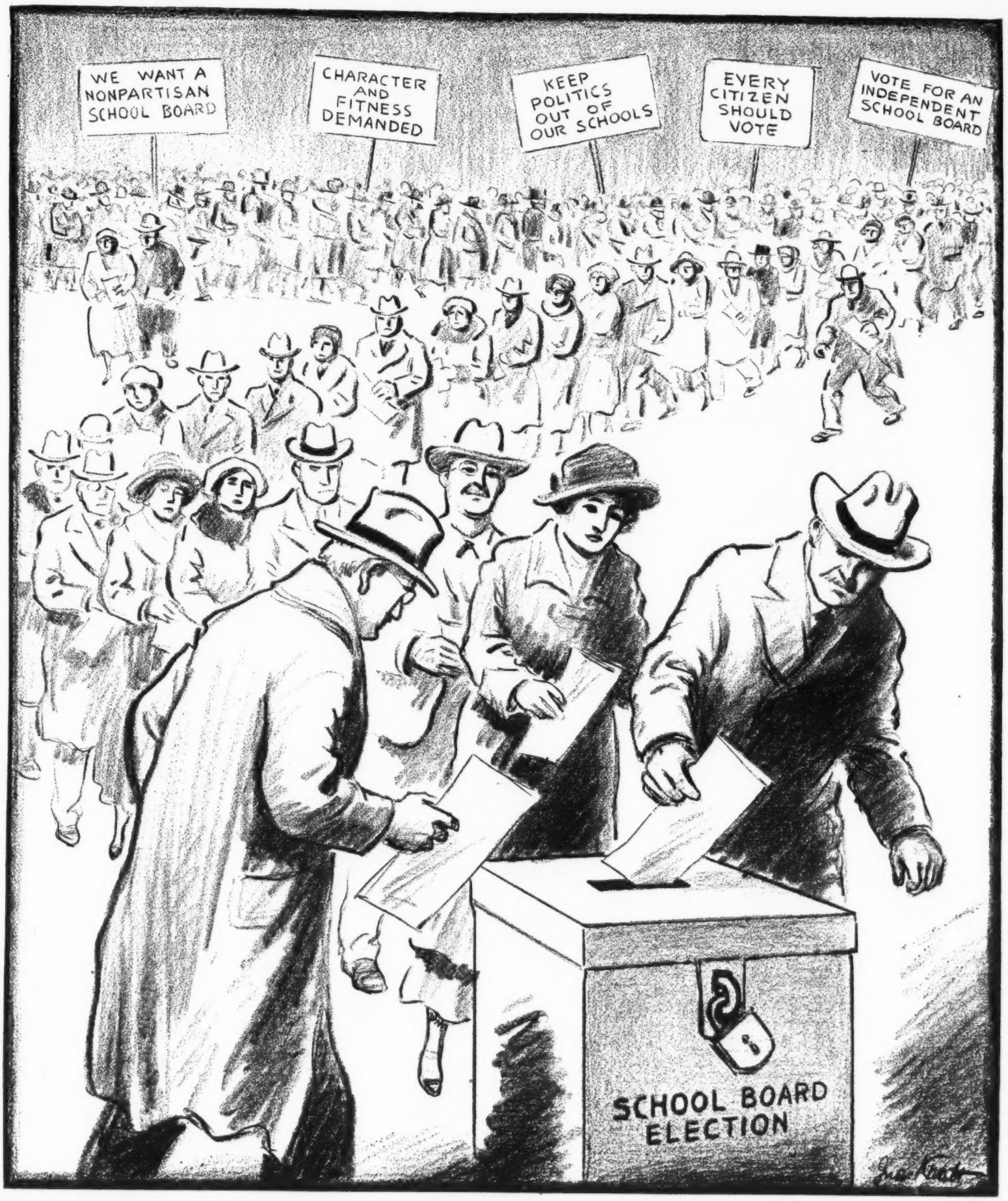
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SCHOOL BOARD ELECTION

A SACRED DUTY OF CITIZENSHIP

Is the *Child* the *Center* of City School Systems?

Charles M. Herliby, Ph.D.

The first three decades of the twentieth century will be remembered as the period in American education in which the administrative and supervisory mechanics of education were developed to an extraordinary degree. The average city school system during this period added no less than a score of new educational practices. The mere listing of most of these is impressive:

1. Employment of teachers with four instead of two years of professional training.
2. Increase of teachers' salaries at least 200 per cent over the schedules prevailing in 1900.
3. Establishment of departments of research.
4. Introduction of standard tests of ability and achievement.
5. Vocational counseling — formal and informal.
6. Junior-high-school organization.
7. Special classes for pupils with mental or physical handicaps.
8. Organized programs of physical education.
9. Programs of extracurricular activities.
10. The use of scientific information in school planning and building.
11. Selection and purchase of improved textbooks.
12. Introduction of a variety of courses in fine arts.
13. Courses in home economics and industrial arts.
14. Trade schools.
15. Visual education and radio.
16. Diversified courses in high schools.
17. Employment of professional supervisors.
18. Modern business methods in the administration of school systems.

This interesting array of progressive procedures is by no means complete.

The principal reason for the extraordinary increase in school expenditures can be found in the public acceptance of the value of each of the above additions to the town and city school systems. Retrenchment in school costs can be made if the taxpayers wish to eliminate any or all of the items in this record of progress. The challenge to school administrators in these difficult years is to help the taxpayer to understand that he pays more for schools in 1935 because the range of services is distinctly broader than it was in 1900.

We have undoubtedly reached the end of this period of expansion. The present low birth rate is already reflected in marked decreases in elementary-school programs. The most urgent needs for new school buildings are being met by awards from federal public-works funds. School superintendents and teachers will have a badly needed breathing spell during the next decade when practically no radical innovations in procedures will be introduced. The immediate task relates to the important business of restoring the child to his proper sphere as the center of interest in education. There are many systems in which the abnormal or subnormal pupil has received the major attention of the school staff. Average youngsters deserve much more consideration than they have received in the past two decades.

Restore Personal Relations

The normal child frequently loses his identity in large junior and senior high schools. The teachers in these mass-production institutions are expected to teach as many as 150 pupils each day. Many secondary-school teachers are unable to remember the names of their pupils, and who can blame them? Our present faulty system of secondary-school organization actually insures an impersonal relationship between teacher and pupil. This condition inhibits real education which demands a close personal bond of friendly understanding between the learner and his guide.

Class periods average 45 minutes and this acute time limitation frequently excludes any real give-and-take in class time. How can teachers really help youngsters when they frankly do not have the time to discover any common ground of understanding?

The worst feature of the present situation is the abnormal size of class groups. Adults know the futility of attempting any worth-while discussion in a group of more than 25 persons meeting together for 45 minutes. The fallacy in the findings of statistical studies which indicate that the "learning" in large groups is commensurate with that in small classes is found in what is measured by their tests. Testing the acquiring of information is only one phase of true learning and only a very small part of real education. Teachers should be much more explicit in their condemnation of class assignments of 40 and 50 students.

Granted that economic conditions prevent the employment of many more teachers at this time, it behooves school officials to study carefully the possibility of reducing the number of different teachers who work with the same group of pupils. What really is the justification of asking college-trained instructors to work with only one subject? Can we prove that learning suffers if one teacher is responsible for work in three or four fields? There are many reasons for believing that a good teacher of English on Monday morning becomes a bored crank on Friday morning when she faces the last five periods of 25 classes in English in one week.

Strong Principals' Personalities Needed

The present adult generation who graduated from high school have distinct recollections of the personal influence of the principal. The average enrollment was 600 pupils, and the head of the school was not engulfed in the impersonal administrative detail which his successor faces today with enrollments ranging from 1,500 to 3,000 pupils. How little attention is paid to the passing of alumni associations in city high schools. This loss is truly much more significant than we are likely to admit. The amazing lack of voluntary leaders to champion the cause of education during this depression can be traced in part to the "impersonalization" of schools during the past two decades.

There is an important place in civic life today for the influence of a strong personality in the positions of school principals. This influence is out, however, under our present set-up which allows thousands of pupils to be herded under one school roof where formerly there were hundreds. The arguments for consolidating more than 800 pupils in any school building should be critically examined and the probable financial saving carefully matched with the obvious losses in personal influence of teachers and principal.

The thesis here presented aims to prove that the center of education in city school systems has shifted from the child to the mechanics of schooling. The next decade provides school committees, superintendents, principals, and teachers the golden opportunity of restoring the child to his rightful place as the center of interest in our educational program.

[1]President of the State Teachers' College at Fitchburg, Massachusetts.

PROGRESS OF CO-OPERATIVE STUDY OF SECONDARY-SCHOOL STANDARDS

Marked progress has been made during the school year 1934–35 by the co-operative committee representing the six regional associations of colleges and secondary schools of the United States, organized in 1933, which is attempting to develop improvements in the methods and standards of accreditation for the secondary schools of the country.

Substantial financial support has been secured from one of the national educational foundations; a central office has been opened in Washington, D. C., in association with the American Council on Education; the Executive Committee of the study recently devoted a week of meetings and intensive study to the problems involved; and nearly 2,500 research studies in secondary education have been abstracted to secure a sound basis for improved standards.

The new Washington headquarters are in charge of Dr. Walter C. Eells, who is on leave of absence from Stanford University to act as Co-ordinator of Research for the study. He is assisted by Dr. M. L. Alstetter of Peabody College.

A general committee of 21 members representing the six regional associations, with five advisory members, is in charge of the study. The executive committee consists of: New England Association: Jesse B. Davis, Boston University; Middle States Association: E. D. Grizzell, University of Pennsylvania, and Richard N. Gummere, Harvard University; Southern Association: J. Henry Highsmith, North Carolina State Department of Education, and Joseph Roemer, Peabody College; North Central Association: George E. Car-

(Concluded on Page 81)

THE EXECUTIVE COMMITTEE OF THE CO-OPERATIVE STUDY OF SECONDARY-SCHOOL STANDARDS
Standing, from left to right: Jesse B. Davis, Boston; M. L. Altstetter, Washington, D. C.; R. N. Gummere, Massachusetts; J. T. Giles, Wisconsin; George E. Carrothers, Michigan; E. J. Ashbaugh, Ohio; Walter C. Eells, Washington, D. C. Seated, from left to right: Carl A. Jessen, Washington, D. C.; M. P. Moe, Montana; Joseph Roemer, Tennessee; J. Henry Highsmith, North Carolina; and E. G. Grizzell, Pennsylvania.

Needed Improvement in School Business Administration[1]

H. E. Akerly[2]

What are the basic problems of school business economy? What are the new attitudes and policies which school boards and secretaries must develop to meet the situation in these post-depression years? A clear-cut analysis will be found in this paper by a leading assistant superintendent in a city which has a national reputation for effective policies. — *Editor.*

In discussing the assigned topic one feels predisposed toward improvement just as President Coolidge was set against sin, but it is harder when we are asked specifically, "What improvements are we for?" And even harder when we must define what we mean by improvements. I am assuming that we mean doing things better; that is, more economically and efficiently. When you apply that definition you discover limitless possibilities in business research eventually leading to improvements. Prior to this time most research has been done in the purely educational functions of the public school system.

At the outset we find, as in any other form of research, that "to make radical advances we must attack the roots and not the branches."[3] How many groups of taxpayers, teachers, and members of Chambers of Commerce have demanded and expected great savings from trimming the fads and frills? You possibly have heard of them? Though the savings by pruning are well worth while and though they many times improve the tree and assure a better growth in the future, they won't turn a scrub pine into a blue spruce, nor will they produce cuttings that can be milled into lumber.

Before we attempt definitely to locate where improvements may be made, is it not fair to assume that we have now passed entirely through that period of the depression where economy meant scuttling functions without regard to ultimate values? In other words, may we agree that to slash or postpone is not to save? To close kindergartens, or to postpone painting a roof is not economy. It is extravagance and no research is needed in that field. The test for true economy is whether or not it is efficient. The two are inseparable.

In the strictly business field, as we know, there are three places to look for improvements: in functions chargeable to ordinary current expenditure, in capital outlay, and in debt service. Under ordinary conditions normal current expenditures or so-called current costs of operation are always far and away the largest and so present the greatest opportunity for exploration. In looking critically at current expenditures we note the obvious fact that savings in current expenditures may be found either in the payroll or outside of the payroll. As the payroll constitutes about 85 per cent of current expenditures, only about 15 per cent, therefore, goes for so-called services other than personal.

The logical place to start to improve would seem to be in the matter of administrative organization. It has been suspected for a long time that this is a subject that has not received all of the attention that it deserves, and that the adoption of stereotyped forms of organization in either the horizontal or vertical pattern to the practical exclusion of others can no longer be justified. What applies in general to administrative organization may be said to apply to school organization as well.

Budgetary and Accounting Practice

In following budgetary practice, the first and possibly the best opportunity for improvement, falls under administration of general control. As this constitutes but three or four per cent of the budget, the direct saving may not be expected to be large. The chances are that immediate cost reduction will arise largely from a job analysis of each position followed by the careful selection of personnel and the assignment of individuals to work for which they are fitted by training and temperament. Unless this is done and unless salaries are paid in relationship to work done, we are probably going to carry the inefficient or lazy on the backs of the efficient.

While school business administration is concerned with a multitude of matters, it is safe to say that there will be little of importance left to do if the functions of accounting, purchasing, and housing are carried on economically and efficiently. May I take these in order? Practically every school system is at present suffering from the need of improved accounting methods. The fault does not lie alone with the local system. It is divided between those in local school systems and state and national authorities. If we are to make the best possible progress in methods of school accounting, cost finding, and in the preparation of comparative statistics, so that we may have some that are worth using, we must have a better system of cost accounts and greatly improved budgets. Nearly two decades have passed since Hiram C. Case of the New York State Department of Education instituted the first generally recognized accounting procedure for schools. Our treasured copy is thumbworn and marked. Is it now about time that some of us directly engaged in school accounting be permitted to join with representatives from the State Department and the Federal Office of Education in revising our school accounting procedure and our budgetary practice?

There would seem to be little reason why these two improvements could not be effected at the same time, because any worth-while system of cost accounts is definitely tied in with the budget. By this is meant that the items in the budget are but the principal headings in the system of accounts, or if you please, the order may be reversed. Looking at this problem solely from the point of view of a worker in this field, I can say that no improvement in school business administration is more needed than a revision of our system of cost accounting and the preparation of a budgetary procedure that will be recognized throughout the country. If these things are done, comparative costs may have some value.

Purchasing and Housing

The second function that needs improvement is that of purchasing. Studies in organization of purchasing together with the transportation and housing of supplies and equipment may readily result in increased economy. After the organization of purchasing personnel there comes the question of securing low prices, for example, by buying jointly with the other governmental units; by buying in the right quantities; by buying stock articles; by avoiding special finishes; and by securing competitive bids. There is also the problem to be studied of standardization in equipment which results in interchangeability and economy. There is the whole field of testing the goods actually delivered. Some city school systems use the school laboratories for this purpose. There is the question of utilizing the publications of the Division of Simplified Practice of the United States Bureau of Standards and of the Consumer's Research.

Within this field of purchases and supplies we might set up five comprehensive studies covering Selection, Requisitioning, Purchasing, Warehousing, and Use.

The third function is that of housing. I am using the word freely to include operation, maintenance, and building planning. In communities where these functions are separated it is fair to ask whether or not improvement can be made by centering them in one place. There is, of course, the question of how far this idea of self-reliance in engineering and architecture may be carried out before the law of diminishing returns starts to operate. Some studies seem to indicate that a school system, even if small, may have a miniature department of buildings and grounds with its draftsman and its staff mechanic, or mechanics, able to handle routine jobs of plumbing, painting, and the like, even though it is necessary to go outside for peak loads and for all construction work. For example, in one school system the supply janitors, extra firemen, and extra cleaning help are all centered in a maintenance shop where furniture and equipment are refinished and rebuilt, each man having been selected because he is a mechanic as well as an operating man who can be sent out on call.

General Business Economies

There are other matters of administration that might be studied in search for improvements, such as travel allowances, receipts from nonresident tuition, discounts taken on purchases, interest on deposits, expenditures for postage and express, telephones and telegraph, and the combination of budget and annual reports. Then there are the cost of printing and mimeographing, including the standardization of forms. And finally in states where the approach to the problem of equalizing educational opportunity has been through state aid based on attendance, it is gratuitous to suggest a study of the effectiveness of the attendance department.

Some consideration might well be given the problem of commercial activities. Shall lunchrooms be operated? If so, how shall we define self-supporting, if that be a goal in their operation? There are several definitions. Shall we permit student stores? How can they be kept out of competition with local merchants? Can we charge fees for school supplies and books if permitted by law, and so be ready to start school the first hour? If so, what shall be the rental fee? Do funds collected in the schools for breakage, tuition, and the like, reach the central office and school treasury? If not, why?

Instruction and the Teaching Staff

The second and largest budget item of current expenditure embracing from two thirds to three fourths of the whole, is that of instruction. Improvements in school organization are largely reflected here. Inasmuch as problems in this field are primarily those for the educator rather than for the business administrator, I shall not discuss them other than to point out that in many cases we need decided improvement in the articulation of the business and educational functions. For example, in all probability it has occurred to few educators that there is a direct relationship between the size of classes and the costs of operation in a school system. Once it is pointed out, it is easy to trace the effects of

[1] A paper read before the Conference on Public-School Business Administration, Teachers' College, Columbia University, July 19, 1935.

[2] Assistant Superintendent of Schools, Rochester, New York.

[3] Eric Temple Bell, *The Search for Truth*, Williams and Wilkins Company, Baltimore, 1934.

changes in class size upon costs for janitorial service, heating, lighting, and other operating costs.

A second consideration that might be mentioned and one in which improvements can be made equally as well, is in the field of teacher personnel. For example, we need to know more about the ultimate effect of the rapidly increasing age of school teachers. In my own city this has increased five years during the depression. If this continues, we shall have to question seriously how effectively certain educational programs can be carried out with a middle-aged teaching group. In this field it may not be that we need so much improvement as we need knowledge — whichever it is, we need it.

Those two are broad, general questions. More specific problems requiring answers are concerned; for example, with the projection of our salary schedules, especially those for teachers, into the future to see the effect upon the tax rate. I wonder how many have ever tried to do this. In addition, how many have ever projected ahead for a period of ten or even five years, the ultimate cost of such acts as shifting from an eight-four organization to a six-three-three organization; or have attempted to forecast the ultimate cost of creating heads of departments in secondary schools.

We need to know more about the clerical service in our schools. Upon occasion, we have been invited more or less insistently into a police station and have marveled when we have seen husky policemen pounding defenseless typewriters. It's common practice, even though a patrolman may receive $2,100 and a stenographer $1,200. Is it any less sensible than for a board of education to use teacher time for clerical service? How much teacher service is being used for clerical work? Elementary teachers usually receive about $1,000 a year more than an equally competent clerk. It's superfluous to say that the savings is even greater when a clerk is substituted for the principal.

We may search successfully for possible improvements in the catch-all of school budgeting, auxiliary agencies, or co-ordinate activities as the group of functions is called. In general they are miscellaneous services which aid materially in increasing the efficiency of classroom instruction.

Two Intriguing Questions

Here are two questions that are searching for answers: First, I wonder how many school-board members and superintendents here today come from cities where there are empty elementary classrooms, possibly a whole school vacant downtown, and yet a new school is being planned only one or two miles away? Has a transportation study been made? At a cost of less than $3,000 a year two hundred pupils can be picked up and carried to a new location. Just the rural idea applied in the city. We have in cities long been accustomed to having the school follow the child. Why not study having the child follow the school? The more you work in this field the more fascinating it becomes.

Every prominent authority in the field of government has pointed out that small governmental units are expensive. School administrators in cities cite these statements and decry the rural-school situation. Yet has anyone in a city ever conducted studies to show the possible savings to be effected by combining small units with others through the use of transportation? We need improvements in urban transportation.

The second question is even more intriguing. It concerns the rural communities as well as the larger ones. If you believe in stronger and better teachers and possibly fewer of them, and are willing to follow the facts, try a little research in teaching by radio. Try teaching science. Try other specialized fields. Pretty soon, if properly conducted, your experiment leads you to an inevitable choice between economy and efficiency on the one hand and tradition on the other. Of course, results will vary, but the use of modern tools in education may be assumed to have results paralleling those in industry until the contrary is proved.

Operating costs of the household expenses of a school system constitute about 10 per cent of current expenditures. They offer opportunities for research varied in nature. First, is the salary roll for janitors and others usually about half of the total? Even a cursory study will show that there are wide variations in practice not only in paying the custodial force but in the organization, training, and administration of it as well. So far as salary recognition is concerned, the researcher is likely to find the custodian in one city paid just above the rate for labor, while in the next he is rated as first-grade engineer drawing the union scale for full time. It may be found that the latter condition is not entirely disassociated from the fact that janitors' organizations are frequently more potent politically than are the teachers. The basis for payment also varies. The piece-work or variable-factor method of paying janitors is worth considering. A study here can easily result in improvement.

The possibilities of training operating men are almost limitless because so few have tried it. In the effective training of public employees may lie the hope of increased return for the tax dollar. Minneapolis and Los Angeles are leaders in this work. In general there is an opportunity for improvement here.

Fuel and Heating Problems

To those of us north of the Ohio and especially where smoke is not tolerated, the fuel problem is a real one. A study made in New York State a few years ago showed that while the school system in one small city spent 7 per cent of its budget on fuel another spent less than 1 per cent. Even though local factors accounted for some discrepancy, the greater part of the difference was waste in purchase and use that could be overcome with study.

In the whole field of research there is no place where there is more aid available than in heating. For the past twelve years I have watched a school system grow, with the construction of one large building after another. Yet the curve of fuel costs has been constantly downward. Reliable engineers can, as the result of studies, estimate possible savings for you, based on different heating units, automatic stokers, change in type or grade of fuel, or through the purchase of heat.

Most of us cannot have heat without water. As there are few places where water is furnished free, we need to know about water consumption. The water bill can be cut down by research. How many of us know, for example, at what level toilet floats are set and why. How far are the sizes of shower heads known, and who knows how much water it should take to wash a boy after the gymnasium period?

As to light, the situation is complicated. It can probably be shown that aside from communities in the southwest where a cloud is a rarity, there is not a single school system where every child works under proper lighting conditions. Nor will proper light be secured until we really get down and study the problem. Here are a few factors. The eye, to work without injury, needs a certain intensity of illumination on the reading surface; let us say, ten foot-candles. The intensity varies, of course, with distance from the window or artificial source. Some of us adults like subdued light, especially women. Down come the shades, even on the north side. You see, we are just where we are in ventilation, pupil vs. teacher. But there is another factor. Studies claim to show that to bring a poorly lighted room up to an even illumination of ten foot-candles, reduces the failures and results in more rapid pupil progress. To get these results you need your light controlled by cells where the teacher can't reach them with a chair. The savings from research in light will be in child health and in more effective teaching. We need them.

It is the duty of educators, when the social-economic system thwarts and hampers us in the maintenance of the highest standards for those under our care, to join hands with others to modify and improve that system. This is nothing more or less than extension of educational ends and means along new lines made necessary by modern conditions. — Lester K. Ade, Superintendent of Public Instruction for Pennsylvania.

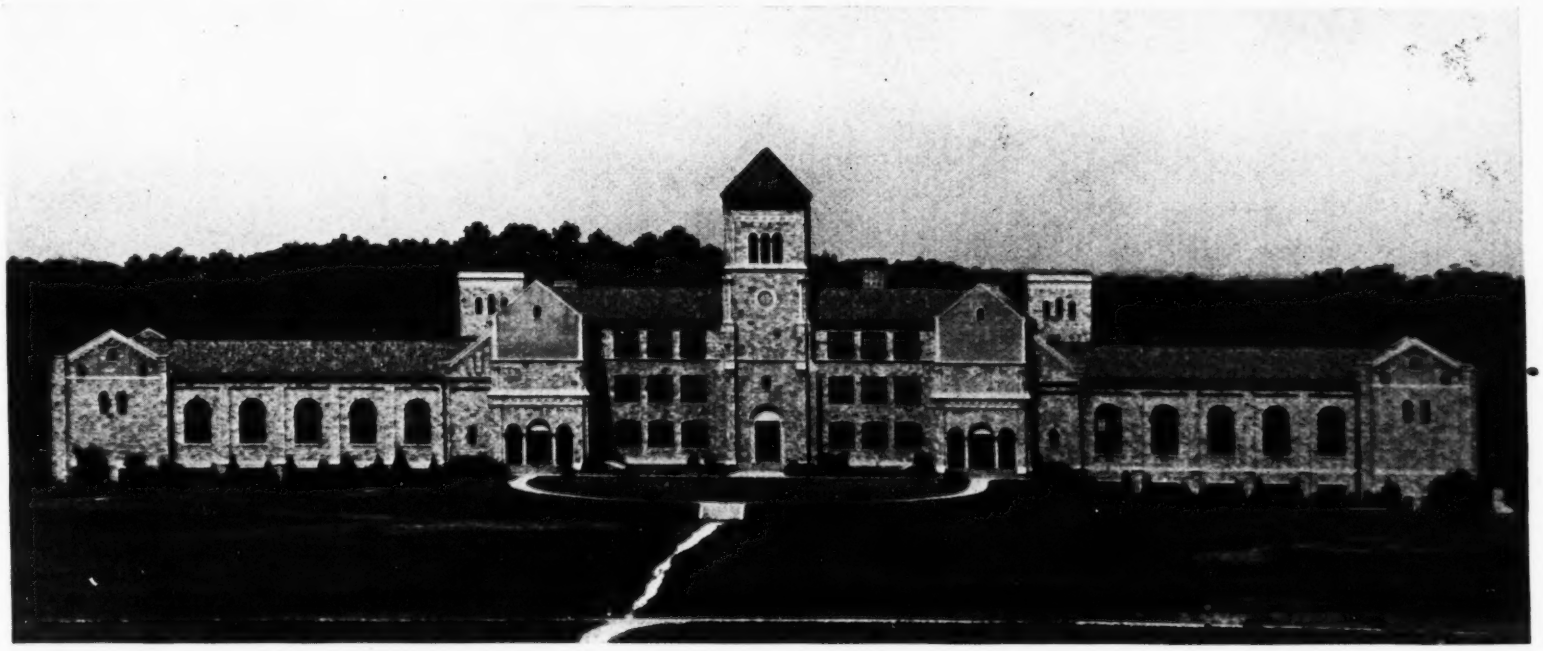
Maintenance and Fixed Charges

There are some things we might do better that are classed under maintenance. Maintenance costs result from the effects of wear and tear upon the materials used in construction. This suggests that the greatest efficiency will come when the departments or divisions of maintenance and construction are closely allied and only then when the operating department is tied in as well. All of this has been touched upon under the discussion of administrative problems, but a concrete example may drive home the point. An independent architect recently completed a beautiful school at a very low cost, received his bouquets and departed. The school has one large handsome boiler entirely adequate and much cheaper than the three that would have been installed by competent and experienced school engineers. Now the operating force faces the problem of holding down one big boiler in the early fall and late spring. The maintenance man wonders what it will cost for overtime for week-end and holiday work when the inevitable shutdown comes, and the principal wonders what it will cost him in nerves and the school district in state aid if the shutdown doesn't fall in a vacation. If we can't do engineering research ourselves, possibly our State Education Department should do it and be allowed to enforce its findings in the form of direct control over our construction work. In many places in this state we need more searching supervision of construction. We can improve in this field.

Fixed charges in New York State constitute about 5 or 6 per cent of the total current budget. The percentage has increased during the depression due to the reduction in the more variable elements in the budget. Under this heading there are some things that we might do better. We might know more about the application of the Workmen's Compensation Law to our civil employees and possibly to some of our teachers. We need to know more about insurance. For example, one fairly well-known board of education discovered a short time ago that if it took its automobile and bus insurance as a rider on the city policy a large saving would be effected. We need to improve our knowledge of fire insurance. Studies by two eminent authorities are in direct opposition; the one showing the need of insurance even in the largest cities, while the other shows that even fair-sized communities with diversified risks can safely become self-insurers. We need improvements in our insurance coverage.

Thus far we have only touched by indirection the subjects of capital outlay and debt service. They are so large and so involved that they cannot be discussed at this time. May I, nevertheless, say one or two obvious things about them?

(Concluded on Page 81)



NORTH CAROLINA IS MAKING REMARKABLE PROGRESS IN MODERNIZING ITS SCHOOL PLANTS. THE NEW N. B. BROUGHTON HIGH SCHOOL, IN THE CAPITAL CITY, RALEIGH, IS EXPRESSIVE OF THE BEST TYPE OF CITY BUILDINGS ERECTED RECENTLY.
(Photograph, courtesy of the Raleigh Chamber of Commerce.)

North Carolina's *State-Supported* Public-School System

J. Henry Highsmith[1]

When North Carolina launched upon the operation of its public schools on a state-wide basis, the authority for such a venture was contained in a statute passed by the General Assembly of 1933, the bill being entitled, "An act to provide more efficiency in the operation and economy in the administration of the Public Schools of the State, to provide for the operation of a uniform system of schools in the whole of the State, for a term of eight months, without the levy of any *ad valorem* tax therefor." That was important and far-reaching legislation and it has profound significance educationally.

The constitution of the state requires the operation and maintenance of "a general and uniform system of public schools, wherein tuition shall be free of charge to all children between the ages of 6 and 21," and this Act of 1933 was a further step in that direction, since the legislature of 1931 had provided for the operation of the schools at state expense (on standards prescribed by the amount of the appropriation) for the constitutional term of six months.

To carry out the provisions of the act the sum of $16,000,000 was appropriated "for a state-wide eight months' public school in place of the present six months and extended terms for the year ending June 30, 1934," and the sum of $16,000,000 was appropriated for the year ending June 30, 1935.

The amount of $16,000,000 made available for the operation and maintenance of the schools may seem to indicate that the legislature had in mind mainly "economy in the administration" and only secondarily "efficiency in the operation" of the schools in passing this act. There is good ground for such a conclusion, for it was indeed an economy measure. The bill was designed to limit the amount of money spent for schools. This economy consciousness is reflected also in the expression, "without the levy of any *ad valorem* tax therefor." There was insistent demand for removal of property taxes in one way or another, and this act was a part of the response by the Legislature to that demand.

[1]Director, Division of Instructional Service, State Department of Public Instruction, Raleigh, N. C.

For many years an eight months' term had been urged and sponsored by the North Carolina State Department of Public Instruction, by the North Carolina Education Association, by the State Congress of Parents and Teachers, by various civic organizations, and by other groups of public-spirited men and women, and the inclusion in the act, "for a term of eight months," was the result, in part, of this continuous and insistent demand. Prevalent also was the notion that such an extension of term would mitigate in some measure the unfavorable features of the bill.

A Depression Measure

It should be kept in mind, however, that the legislature of 1933 was in session when the depression was at its worst. Banks were failing daily (until President Roosevelt ordered all of them to close — many of them never to open again), lands and homes were being advertised and sold for taxes, millions of men were idle, millions of people were on direct relief, business was paralyzed, and the future was dark and uncertain. The members of the legislature were trying to provide for keeping the schools open by switching responsibility to the state, and this assumption of the obligation by the state was a bold and progressive step educationally considered.

This action taken in 1933 was but another step in the evolutionary process of financing the public schools and was precipitated by the unusual economic condition existing at the time.

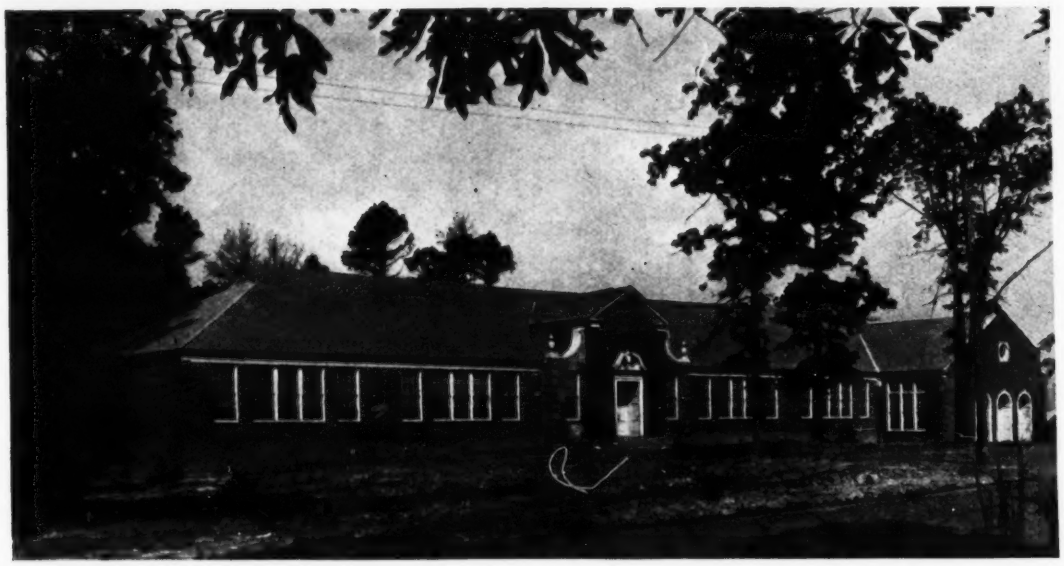
In his report to the Governor and the General Assembly for the biennium ending June 30, 1932, the late Dr. A. T. Allen, state superintendent of public instruction, gave this excellent summary of the situation: "The General Assembly of 1929, in anticipation of the coming of hard times, began seriously to take note of the rising cost of public education. In order to meet the conditions the teaching load was materially increased, but the salary schedule remained untouched. Over the biennium following, the economic pressure in many localities removed, in whole or in part, the supplements to salaries. Although the attendance for the year 1929–30 was 28,140 more than for the next preceding year, the schools were operated with 736 fewer teachers, thereby increasing the average teaching load by two pupils. In spite of this reduction in the total number of teachers, the cost of the six months' school term for 1929–30 was $762,682.83 more than for the previous year. The economy measures in the 1929 law were sufficient to level off the curve of increase, but were not sufficient to bring the total cost of education to a declining scale.

"The General Assembly of 1931 faced a much more difficult situation. The rising cost of education, coupled with the inability of many counties to collect local taxes to meet their obligations, had placed some of the counties on the scrip basis. Many teachers had not been paid in full for their services in the previous year. Land taxes were too high. It was necessary for the General Assembly, under the conditions existing in 1931, to take such action as might be necessary to reduce, by an appreciable amount, the taxes levied on land and other property. In spite of a 24-year effort to equalize the county tax rates for the support of the six months' school term by means of an equalization fund, there was still a wide range of tax rates among the several counties due to shifting values and fluctuating school costs.

"In the face of these difficulties, it became obviously necessary for the General Assembly to take vigorous action in order merely to keep the schools open. Out of this condition was born the principle of complete State support. The General Assembly was unwilling longer to leave the fate of the schools to the different localities of the State which varied so much in financial strength. The State as a whole, therefore, underwrote, on the basis of state standards of cost, the operation of the constitutional term in every district of the State."

Earlier Acceptances of State Support

In considering this problem of state support it should be stated that the principle of such support was recognized by the General Assembly prior to 1933. As early as 1899 direct appropriations were made to the public schools out of the general treasury. Prior to 1931 the responsibility for raising the necessary funds to support and maintain the constitutional term of six months was thrown upon the counties. The courts had decided that the state might discharge its obligation to provide a "general



NORTH CAROLINA'S PROGRESS IN EDUCATION IS EXPRESSED IN TANGIBLE FORM in the well-planned, well-built centralized rural school buildings which are springing up in every county. Above is the Mull School, Burke County. Photographs by courtesy of Charles C. Benton & Sons, Architects, Wilson, N. C., and Mr. W. F. Credle, Director Division of Schoolhouse Planning, Raleigh, N. C.

and uniform system of public schools" by passing the obligation and function along to the counties. By 1923 the state appropriations had increased considerably. The amounts appropriated for each biennium for the six months' term were: 1923–25, $2,500,000; 1925–27, $3,000,000; 1927–29, $6,500,000; 1929–31, $10,500,000 (for extended term an additional $2,500,000); 1931–33, $23,000,000 (an additional $3,000,000 for extended term); a total of $51,000,000 from indirect sources of revenue over a period of ten years.

Sometimes it was called an "equalizing fund," or a "tax reduction fund," or an "extended term fund." It was always a matter of taking taxes off land. The state at one time levied an *ad valorem* tax of five cents for the support of schools, but this tax was abolished by the Legislature in 1921, and thereafter all taxes on land were levied by local government units.

This effort to get away from local taxes — taxes on land — is responsible for and inspired that phrase in the Act, "in place of the present six months and extended terms," and for the more complete statement in Section 4 which says: "All school districts, special tax, special charter or otherwise as now constituted for school administration or for tax levying purposes, are hereby declared nonexistent, and it shall be unlawful for any taxes to be levied in said districts for school operating purposes except as provided in this Act."

As early as 1903, during Governor Aycock's administration, a campaign was waged to vote local tax rates and thereby increase the funds available from county and state sources. The number of local tax districts had grown until, on January 1, 1933, there were 1,293 such districts in the state, the revenue from which amounted to $3,615,273 for current expense in 1932–33. Furthermore, by 1930–31, a total of 24 of the 100 counties had county-wide eight months' school terms, 9 of them having voted the tax by districts, and 15 on a county-wide basis. Thus, in a part of the statute — "it shall be unlawful for any taxes to be levied" — was undone all that had been done over a period of more than 30 years, and thus was enacted a bit of the most unfortunate school legislation in a third of a century. The local tax rates ranged from 10 cents to $1, the average rate being about 30 cents on the $100 worth of property. If the Legislature had allowed the counties and districts to retain any portion or percentage of the local tax rates, it would have been of tremendous advantage and it would have obviated the necessity of having a vote of the people to levy a local rate when economic conditions made it almost impossible to secure favorable action on a vote to levy a tax rate for any purpose or object. However, since 1933 about a dozen city administrative units have voted local rates under the provision of the Act — "that before making any levy for supplementing State budget allotments an election shall be held in each administrative unit (there are 100 county units and 68 city units) to determine whether there shall be levied a tax to provide said supplemental funds, and to determine the maximum vote which may be levied therefor — but in no event to provide for a term of more than 180 days."

State Support Means State Control

The appropriation of $16,000,000 a year for the biennium 1933–34 and 1934–35 was found inadequate. In order to balance the budget in terms of money made available by the revenue act, it was found necessary to impose several limitations upon the school budget. The General Assembly sought to effect the necessary savings to balance the budget as follows:

1. By a new and lower salary schedule for county and city superintendents — $1,400 to $2,800.

2. By raising the number of allotted teachers necessary for a whole-time high-school principal from 20 to 50, thereby saving one high-school teacher in each such school and by raising the number of allotted teachers in a large system for an additional principal from 20 to 40, thereby saving the state the salary of one half the principals in each system.

3. By increasing the teaching load of elementary teachers by one pupil in each 35, and high-school teachers by one pupil to each 30.

4. By a reduction of 25 per cent in the salaries of teachers in a school in which the average daily attendance was 22 or less, and a reduction of 15 per cent for teachers working in two-teacher schools with an attendance of 45 or less.

5. By eliminating for two years the salary increment accruing on the basis of experience.

6. By authorizing the state equalization board to make a flat reduction in teachers' salaries by an amount not to exceed 10 per cent.

7. By directing county boards of education to operate all trucks at lowest possible cost.

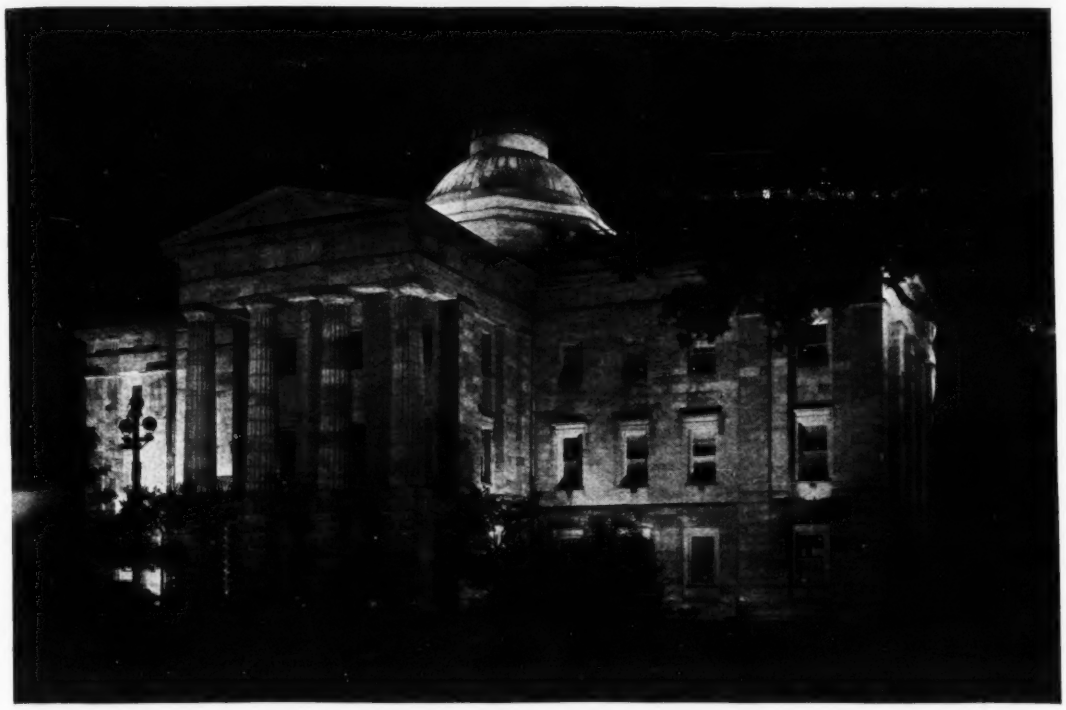
8. By authorizing the state equalization board to fail to allot teachers in a school operated in close proximity to another school of the same type when the pupils could be taught more economically elsewhere.

In other words, the educational garment had to be cut according to the cloth ($16,000,000 which, as a matter of fact, was only $15,850,000, but fines, forfeitures, etc., amounted to $1,320,000 making a total of $17,170,000).

State support of education leads inevitably to state control of education. When the state assumed the obligation to operate the public schools for eight months, it also declared and exercised the right to set up the standards of operation. The state furnished the money and stipulates how it shall be spent. This is well illustrated in the 1935 statute relating to objects of expenditure: "The appropriation of state funds . . . shall be used for meeting the costs of the operation of the public schools, as determined by the State School Commission," for the following items:

1. *General Control*
   - *a*) Salaries of superintendents.
   - *b*) Travel of superintendents.
   - *c*) Salaries of clerical assistants for superintendents.
   - *d*) Office expense of superintendents.
   - *e*) Per diem county boards of education in the sum of $100 to each county.
   - *f*) Audit of school funds.
2. *Instructional Service*
   - *a*) Salaries for white teachers, both elementary and high school.
   - *b*) Salaries for colored teachers, both elementary and high school.
   - *c*) Salaries of white principals.
   - *d*) Salaries of colored principals.
   - *e*) Instructional supplies.
3. *Operation of Plant*
   - *a*) Wages of janitors.
   - *b*) Fuel.
   - *c*) Water, light, and power.

THE NEWEST CONSOLIDATED RURAL SCHOOL BUILDINGS IN NORTH CAROLINA ARE WELL DESIGNED because every project has the careful attention of the state. The State Department of Education, through the office of Mr. W. F. Credle, Director of the Division of School Planning, renders the highest type of professional advisory service, assists in locating buildings, directs the planning, and gives advice in any emergency. The building here illustrated is the Chesterfield School, Burke County, designed by Charles C. Benton & Sons, Architects, Wilson, N. C.



NORTH CAROLINA STATE CAPITOL, RALEIGH, NORTH CAROLINA, WHERE THE STATE ADMINISTRATION OF THE PUBLIC-SCHOOL SYSTEM IS CENTERED
(Courtesy Raleigh Chamber of Commerce.)

d) Janitor's supplies.
e) Telephone expense.
4. *Auxiliary Agencies*
a) Transportation
(1) Drivers, and contracts.
(2) Gas, oil, and grease.
(3) Mechanics.
(4) Parts, tires, and tubes.
(5) Replacement busses.
(6) Compensation for injuries and/or death of school children as now provided by law.
b) Libraries.

Extent of State Control

The State School Commission was directed to effect all economies possible in providing state funds for the objects of general control, operation of plant, and auxiliary agencies, and was given full authority to increase or decrease on a uniform percentage basis the salary schedule of teachers, principals, and superintendents in order that the appropriation of state funds for the public schools might insure their operation for the term of eight months or 160 days.

The same authority over expenditures is clearly set out in the section relating to the operating budget: "It shall be the duty of the county board of education in each county and the school governing authorities in each city administrative unit, upon receipt of the tentative allotment of state funds for operating the schools and the approval of all local funds budgets, including supplements to state funds for operating schools of a higher standard, funds for extending the term, funds for debt service, and funds for capital outlay, to prepare an operating budget on forms provided by the state and file the same with the state superintendent of public instruction and the State School Commission on or before the first day of October. Each operating budget shall be checked by the State School Commission to ascertain if it is in accordance with same, shall be the total school budget for said county or city administrative unit."

A third illustration of the control which accompanies support is the section dealing with school transportation. "The control and management of all facilities for the transportation of public-school children shall be vested in the State of North Carolina under the direction and supervision of the State School Commission, which shall have authority to promulgate rules and regulations governing the organization, maintenance, and operation of the school transportation facilities. The tax-levying authorities in the various counties of the state are authorized and empowered to provide in the capital-outlay budget adequate buildings and equipment for the storage and maintenance of all school busses.

Implications of New Plan

Furthermore, this new principle of complete state support has many significant implications:

1. It emphasizes the conception that the education of all the children of all the people is a state obligation, not the obligation of any one of 2,000 districts or any one of 100 county and 68 city administrative units.

2. It separates the schools from *ad valorem* taxes levied on land. Support of schools in districts and counties has been dependent upon property values, and every school administrator knows that it is impossible to work out a satisfactory system of land values over an area of 52,000 square miles of widely diversified territory. It is impossible to provide for equality of educational opportunity when school funds are derived from taxes levied on land in restricted areas.

3. State operation of all the schools makes it possible to consolidate schools without regard to district or county lines. Furthermore, the transportation of pupils can be facilitated, and economy and efficiency increased, because district lines can be disregarded. Consolidation makes possible a larger type of school, with superior advantages. This is particularly true of the high schools.

4. The elimination of special tax districts has simplified tax levying and budgetmaking. State support means that the tax burden is more equitably distributed, and the taxing power of the state has been placed behind the forces seeking to provide adequate educational opportunities.

When all the elements in the situation are taken into account, it will be seen that complete State support of public schools as it applied to the sessions 1933–34 and 1934–35 had three distinct advantages:

1. Every child was guaranteed a school term of at least eight months or 160 days.

2. Teachers' salaries were guaranteed and paid on time, whereas if the obligation had rested upon the district or county, the salaries would not have been paid on account of failure to collect taxes levied on land. It is true that the salary schedule was tragically low. The amount available for salaries was about $12,500,000 for about 23,000 teachers, and the highest salary of the most highly trained teacher was $90 a month for eight months.

3. The length of term was increased 33 1/3 per cent for about 24 per cent of the pupils. Some schools which had operated for 180 days were reduced to 160 days, it is true. No community could operate more than 160 days without a vote of the people authorizing such extension of term by levying a local tax rate.

The outstanding defect in complete state support in 1933–35 was an insufficient appropriation of $16,000,000 each year of the biennium, and the same defect applies to the amounts appropriated for 1935–36 ($20,031,000) and 1936–37 ($20,900,000).

The problem of education in its final analysis is a problem of sufficient money wisely expended. Only money is needed to convert the doctrine of the equal right into the practice of the equal opportunity under North Carolina's new plan of complete state support.

A *Special Room* for Retarded Children, and Its *Equipment*

Catherine Landell, Fort Lupton, Colorado

Few districts are able to provide a retarded group with a room built to meet their particular requirements. Such groups are new in the educational world. However, by shifting a few regular classrooms, and doing a little inexpensive carpentry, a suitable room may be obtained.

Location is of importance. It should be so located that it has access to the gymnasium, the shops, and the domestic-science department. In many buildings, it is possible to have two connecting rooms. It costs little to have a doorway cut through. One room should be fitted with movable tables and chairs for classwork. The other room may be fitted with cupboards, a sink, a gas or an electric plate, tables, chairs, and a workbench. It is advisable to start with simple materials at first, adding items to meet the needs of the class. A large part of the simpler carpentry, painting, and decorating can be done by the children. It offers excellent work in arithmetic, language, and art.

Old attics will yield usable furniture. Most domestic-science departments can lend enough equipment for a small group. Little by little the department can be equipped. Such things as a sewing machine, an electric iron and ironing board, carpentry tools, radio, typewriter, sand table, kitchen utensils, aquarium, old magazines, playhouse, brooms, dust cloths, and garden tools will prove useful. There must be toys, puzzles, and simple games for relaxation and fun. The "want" list is unlimited and ever changing. Unexpected, worth-while projects are always coming up.

Generally, it is best to take the play periods when others are busy indoors. Therefore an outside entrance should be near, so that other classes will not be bothered by the passing of the group through the hallways. These children are not capable of long periods of study or written work. An easily accessible playground and indoor space for games or folk dances are advisable. Movable chairs and tables help to make this possible.

Free time should be allowed for games of their own choosing. Dominoes, checkers, pit,

crokinole, jig-saw puzzles, marbles, ten pins, Lincoln logs, tinker toys, mechanical trains, stamp collections, all these and dozens more may be used. Too much time for play? Not if you remember that the way in which leisure time is used today is of utmost importance to the morals and the morale of the country.

A bit of ground to be used for gardening in the spring is a valuable thing. Most towns have several vacant lots that can be had to use. Vegetable gardens and flower plots will turn them into beauty spots. They will offer lessons in figures, reading, thrift, civic pride, the dignity of work.

The selection of books is a task. Very few books are written with this type of readers in mind. The reading age is low, of primary grade; the emotions and desires are generaly those of an adolescent. Simply written, well-illustrated books of travel, history, and nature study are on the increase. This is encouraging. Two copies of each book will prove to be of far greater benefit than two dozen. Travel magazines, catalogs, popular-science periodicals will be helpful. The text may be too difficult, but the illustrations will teach.

A well-selected daily paper may be brought for discussion. Current events, happenings of local interest, want ads, weather reports, advertisements, features in the sport world furnish material for oral language, civics, arithmetic, reading.

Provision should be made for pets. Cruelty often crops out in these children. An aquarium, a canary, even a friendly dog may have a place in this room.

A first-aid cabinet and perhaps a cot are advisable. The children need to know the rudiments of first aid, cleanliness, and home nursing.

Materials will be needed for the construction of play stores and houses. Here in the form of play may be taught the correct way to make a bed, set a table, care for a baby, how to make change, how to telephone, the way to plan meals, to order groceries, to wrap packages, and numerous other things needed in everyday life.

No one can fail to recognize the fact that the group will marry young. Therefore they must prepare the pupils for the work of homemakers. This problem is to be of first and of last consideration. The work may appear to some as mere play when compared to the work of the ordinary classroom. But the teacher never loses sight of the ultimate goal of marriage of these youngsters.

The vocational work offered will depend on the locality. The care of children during the mother's absence, the cutting of lawns, weeding gardens, the wrapping of packages, messenger-boy work, the cleaning of ash pits, washing dishes, waiting on table, preparing vegetables, waiting on trade at filling stations, ironing — these things must be worked into the curriculum. The materials provided for such work can often be secured from secondhand stores.

All this sounds like a great deal of expense to the school district. In reality this is not so. It costs no more than to provide extracurricular activities for a normal group or to equip a science department. The school board does not hesitate about such expenses. Why hesitate about spending a similar amount for the handicapped? Retardation costs money. This work will do away with a large amount of repeat work. In later years the school district will be spared the costs of corrective and charitable institutions.

The school board will have had a part in developing the habits and skills that will enable these handicapped children to reach their highest economic level in the working world, fitting them into the community's social life as best possible.

The children will be allowed to exercise their limited talents, compete at their own level, feel a sense of achievement, and to experience a little happiness.

The Principal *as a* Counselor *of* Youth

W. Howard Ketring, A.M.[1]

The principal who can get away from his administrative duties long enough to reach his students, will find them much in need of and anxious for personal guidance in meeting many of the harassing problems that confront them in their youthful lives.

In this connection, the principal can make a unique, permanent, and outstanding contribution to the work and life of the student in high school and out. If he has the confidence of these boys and girls so that they feel free to come to him for counsel and advice, he has a broad opportunity to serve them during life's most precarious years. Sometimes, there is no other person to whom these young people can go with their problems with assured confidence. To be approachable and responsive is a wholesome attitude for the principal to assume.

Principals and teachers must live close to youth. With the understanding of their nature and needs, we can respond intelligently and receptively in the solution of the problems that perplex them sorely. Young people have a code of ethics that may not be as clear-cut and complete as that of adults, but they do have their own particular ideals of living, with interests and aspirations peculiar to their own age. Principals and teachers who seek to deal with them as personal counselors, must somehow try to get the viewpoint of youth. Frequent sympathetic association with students is essential in order to understand the motives that prompt them and the ideals that inspire them.

Most students, whom I have met, do not feel free to converse with just anyone in regard to their intimate, personal problems. Many have misgivings that their confidence might be betrayed, and they know that this would, in some instances, precipitate a worse situation. Certainly, the principal should be one to whom each student can go with complete confidence in this matter. To thwart or betray the confidence in a single student might close the door forever against any further opportunities to assist a considerable number of students in solving their personal problems.

It happens, frequently, that students approach the principal's office with timidity, for fear that the man who presides over an entire school might be unapproachable and unsympathetic. Any timidity here on the part of students should be removed by a few encouraging words which will clear from the young minds any false conceptions. The principal should never show any signs of lacking interest or sympathy in these problems, however trite they may be. To students, the problems are new and important and real, and they are to be taken seriously and considered carefully.

Occasionally, a principal is prone to relate his own personal problems to those presented by a student and to compare his experiences with those of the boy who is being interviewed. This bad practice should be guarded against, because it inevitably reflects an amount of egotism. Experiences may be presented in a wholly impersonal manner, and then only to illustrate a happy solution of a difficulty — a solution to which the student may himself look forward.

The principal, in counseling, should be calm, composed, confident, and frank, although at the same time sympathetic. The attitude in the counseling should never develop into a cold indifference which would mean that the true situation in the problem would not be disclosed. Sometimes students will overstate an issue, exaggerate certain phases in it, and even manifest a degree of selfishness; but the principal should wisely maintain an attitude of considerate receptiveness. This must be done even in the face of revealed prejudice or animosity, and he must not be too eager to indicate them to the student seeker.

Most students who come to the principal for advice do so because they are engaged in a conflict, either in school or out, and there is an earnest desire on their part to win. As a result of these conferences, there should come strength, confidence, and a more determined attitude to fight for a clarification of the issue and for progress toward its best solution. In each case, the principal has to proceed carefully, tactfully, and courageously, and go to the source of the trouble and then be judicious in his diagnosis. If he should find any weakness that may cause susceptibility to a feeling of inadequacy or incompetency, he should suggest ways and means by which this feeling can be overcome. Some solution of each difficulty should always be indicated to the student before the close of an interview.

Principals should understand thoroughly that all such counseling should be done apart from the group — best in the privacy of the school office. It is more courteous and as a rule good technique to allow the student to take the initiative. It is well to give him plenty of time to take the lead; it is wise to ask questions which will reveal the full facts and tell the whole story, before any attempt is made to a solution. In the course of the interview the student will get off the trail and it will be necessary to bring him back. He will do this, perhaps, to introduce circumstances which seem to exonerate himself and implicate someone else. By tactfully forcing a consideration of the main issue, which in all probability will involve the individual himself, the counselor is really helping the student to solve his own problems, which is the most desirable aim. The student who comes from the interview with the feeling that he has not "lost face" but has himself found the solution of his problem has been doubly benefited.

Sympathy and good judgment should direct the principal in all personal counseling. The student's welfare should be considered as the matter of supreme importance. The problems should never be made a subject of conversation, and the student's motive in seeking guidance should be respected. All issues should be clarified in the solution, and the student should feel greatly encouraged, even though he has been corrected. By cultivating such an atmosphere, there will always be the right attitudes between principal and students.

[1]Principal, Community High School, Pinckneyville, Illinois.

THE TASKS OF THE SCHOOL SUPERINTENDENT

To be responsible for all children — the rich and the poor, the weak and the strong, the crippled and the gifted.

To inspire teachers with a keen appreciation of the social significance of their work.

To know the public with its ambitions and enthusiasms.

To be a philosopher with insight and faith and the courage to try new things.

To be an organizer and a doer with the energy to carry through.

— *Department of Superintendence*

Improving SILENT READING in the High School

Charles L. Suffield[1]

Progressive school boards, school executives, and teachers are considering seriously, today, the problem of improving the silent-reading abilities of their high-school students. The importance of this problem is readily realized when we reflect upon the many economic and cultural values that are available only to efficient silent readers and then consider how few high-school graduates can be classified as such.

Dr. Arthur I. Gates (6),[2] a nationally recognized authority on this subject, recently made the following statement regarding the value of supplementing the reading instruction of adults: "As a conservative estimate, it may be said that if every literate American over fifteen years of age who spends two hours or more a day in reading could be given such training (in reading) for a month, the saving in time required to do the nation's workaday reading, valued at fifty cents an hour, would amount to more than five billion dollars a year."

Such a statement is an indictment of the effectiveness of the public schools. Most administrators and teachers have an uneasy feeling that Dr. Gates' implied indictment is justified. Standardized silent-reading tests, given in almost any large secondary school, will reveal a number of pitifully inefficient silent readers. In general, investigations have shown quite definitely that many failures in the high school itself have been caused by poor habits of reading.

Teachers and Publishers Concerned

High-school teachers of English have long recognized that too many of their students stumble along in silent reading without either understanding or appreciation. These teachers have found it easier to blame the grade-school teachers for inadequately training the students than to provide a program that would improve the silent-reading skills of the inefficient high-school students.

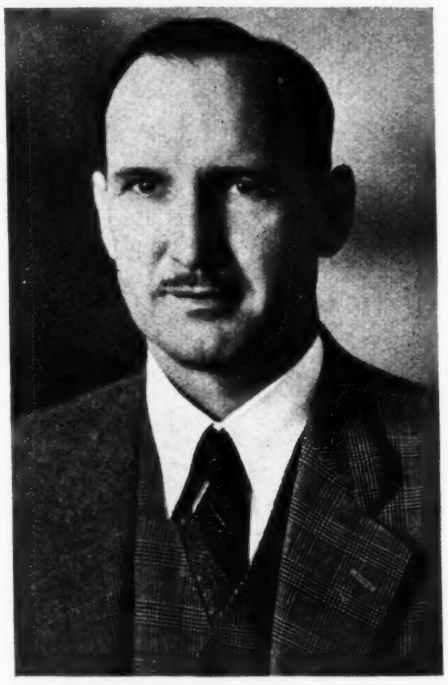
At present, however, the high-school teachers of English are indicating a more serious interest in the problem. A "Committee of the National Council of Teachers of English" has studied the reading experiments and investigations of interest to high schools. The results of over fifty of these recent reading experiments and researches were summarized by them and published in the *English Journal* for June, 1935. The committee is continuing its study and recommendations for the improvement of high-school reading may be expected from them.

One additional piece of evidence that presents itself as testimony to the importance of the silent-reading problem is to be found in the activity of the school textbook publishing companies. During the past year two very good silent-reading high-school textbooks have appeared. At least two other major textbook publishing companies have similar books in preparation which will be available within the next six months. Needless to say, school boards will be given an opportunity to authorize the purchase of some of these texts.

There seems to be general agreement that the silent-reading abilities of high-school students should be improved. Just why high-school students cannot read more efficiently and what the school should do about it are not so clear.

Types of Readers and Remedial Reading

Inefficient readers in the high school can be classified into two types: students who have failed to learn the basic reading skills that should have been mastered in the grades, and students who have not developed the higher reading skills demanded for satisfactory high-school work. Students of the first type need highly individualized remedial instruction; the latter students need group instruction in the general techniques of silent reading on the high-school level.



MR. C. L. SUFFIELD
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In every high school, students in need of remedial reading instruction stand out conspicuously. The Head of the English Department of a California high school was recently surprised to discover a senior who had never learned to distinguish between the letters *b* and *d*. High-school teachers generally would be greatly surprised also if they took the time to analyze the reading difficulties of their failing students. Those teachers who desire to help students in need of remedial reading can find valuable suggestions for necessary procedures in almost any recent book on the teaching of elementary reading.

Gates (7) points out that "remedial instruction must consequently be directed toward the relief of the emotional and volitional maladjustments as well as the inappropriate reading techniques. Inappropriate reading techniques are most effectively removed by replacing them with appropriate ones. Instruction designed for this purpose differs from the preventive or ordinary instruction only by being more effectively motivated and more definite, more specific, more thoroughly supervised and guarded against relapse."

While the need for remedial-reading instruction is quite urgent, probably the more important need is that all high-school students should receive additional instruction in the techniques of silent reading.

Techniques of Silent Reading

Silent-reading skills demanded in high school differ significantly from those skills needed in the grades. The high-school student must read much more rapidly and comprehend much more complex materials than the grade-school pupil. In recent years the high schools and colleges have recognized this fact, and a few schools have attempted to develop definite programs calculated to bring the reading skills of high-school and college students up to the level required for the efficient pursuit of their studies. In developing reading programs, the schools have been guided by findings from the 1,500 scientific reading investigations that have been reported in this country and England within recent years.

Scientific Investigations

The high schools have been particularly anxious for their students to develop reading speed, accompanied, of course, by comprehension. In connection with reading speed, the investigations concerned with eye-movements while reading seemed promising.

The investigators developed a machine with which the experimenters could photograph the moving eyes of a person while engaged in reading. A new vocabulary developed out of these studies including such words and phrases as eye-span, flights, perches, fixation frequency, pause duration, perception time, and regression frequency. Correlations between these elements and reading speed and comprehension were industriously calculated.

The psychologists explain that the eyes read a line of print by moving in a series of short jerks. Nothing is seen between jerks. It is obvious that the more words the eyes see at each fixation of the eyes, everything else being equal, the more rapidly can the reading be accomplished. It is explained that reading speed is cut down by such faulty eye-movements as the following: too rapid or too slow movement between stops, too long or too short a distance covered between stops, too long or too short a pause at the stops, the introduction of occasional movements backwards along the line, failure to turn to the new line with one continuous sweep, and finally, lack of regular sequence or rhythm in the whole process.

Eye-Movement Findings Questioned

Robinson (16), Pitkin (14), and Pressey (15), authors in the field of silent reading, attempted to apply the eye-movement findings to the preparation of their instructional reading materials.

Robinson prepared her reading materials by having the printer break up into short phrases each line of reading. The phrases were separated by distinct spaces. The reader's eyes were supposed to pause but once on each phrase and proceed rhythmically to the next phrase. By practicing on reading material of this type the reader was presumed to develop the habit of seeing large groups of words at each fixation of the eyes.

Pressey used, in the first pages of her manual, crosses placed at the ends of lines, omission of unimportant words in a selection, and underlinings, dots, or crosses placed at the points where the eyes are supposed to pause in moving across the printed line.

Pitkin used phrases and sentences printed in large capital letters.

Robinson has made experimental studies of the use of eye-movement materials and seems convinced of their merit.

Some modern teachers are influenced by that psychology which denies that psychic processes can be advantageously regarded as if composed of elements found in them by analysis. These teachers are critical of mechanical devices used for reading drill that break up the reading materials into unnatural elements not found in functional reading. Even the reading specialists

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[2]The numbers in parentheses refer to books and articles listed at the conclusion of this article.

are disagreed among themselves as to the value of eye-movement reading drills.

Tinker (20) claims that faulty eye-movements do not cause reading deficiency. "In none of his cases did Gates (8) find that inefficient eye-movements were the basis of reading disability. . . . In practically all cases, faulty eye-movements are merely symptoms rather than the cause of poor reading."

Eurich (4), in discussing the reliability and validity of photographic eye-movement records stated: "Usually, it is assumed that the individual whose eyes pause frequently while reading is an ineffective reader both in terms of comprehension and rate of reading. If this assumption is valid, relatively high relationships would be obtainable between the photographic records and scores on reading comprehension and rate tests." The coefficients, he points out, "reveal that this is not the case."

Litterer (11) concluded that "fixation frequency and perception time in reading is correlated only moderately well with rate and comprehension."

We can conclude that eye-movement reading drills such as the ones described are of doubtful value. It is usually advantageous to use the most natural methods and materials in promoting the learning process.

Other Scientific Findings

While there may be many differences of opinion among the reading investigators about the proper reading materials and methods, it is likely that most of the investigators would agree with Eurich in his summary of "principles" of value in silent-reading instruction. Eurich (5) wrote as follows:

In general, investigations have shown quite definitely that many failures in the high school and college are caused by poor habits of reading and study. Frequently attempts have been made to improve these habits through a discussion of general rules on how to read and study. Evaluation of this method has shown quite clearly that mere discussion of rules is not helpful. On the other hand, a survey of the investigations in this field has unearthed eight tested principles that are suggestive in planning a remedial program. . . .

1. Students can learn to read more rapidly through practice in reading against time.
2. Students can enlarge their vocabularies through word drills and specific study of words.
3. Specific practice in reading directions produces definite improvement in this type of exacting reading.
4. Systematic and thoughtful outlining is helpful in learning and in retaining facts within a given subject.
5. Incentives stimulate achievement in reading and study. (1) In silent and in oral reading knowledge of results leads to improvement in rate and comprehension. (2) Praise and reproof are effective incentives. (3) Rewards are effective incentives for improving scholarship.
6. Recitation, or active recall, increases the amount of material retained.
7. The use of the library is associated with higher scholarship.
8. Disciplinary measures are sometimes useful in improving scholarship. The disciplinary action should be used to stimulate improvement only after methods have failed.

Eurich's "principles" undoubtedly offer a foundation upon which a sensible program for improving the silent-reading skills of high-school students may be built. His first principle proposes a method by which reading speed can be secured. His other proposals deal primarily with reading comprehension.

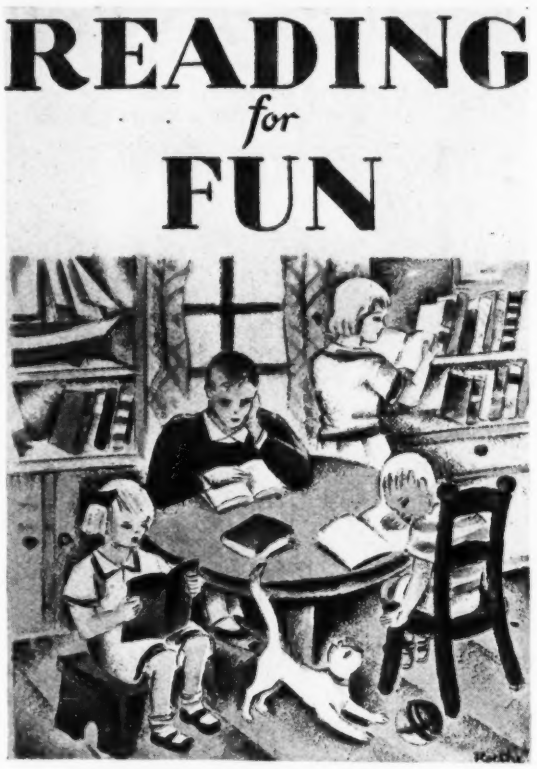
Comprehension and Reading Speed

Although Thorndike (19) has warned that "speed in reading should not be made a fetish," nevertheless greater reading speed should be the goal of nearly every high-school student.

Reading speed is useful in two ways. First, it obviously permits the student to read more extensively and saves time from his required reading. Second, it aids comprehension by getting two or more elements into the mind without too long time intervals. Strang (17) has expressed the value of reading speed in this way: "Reading with a time limit tends to increase concentration upon the content because rapid reading requires the grasping of larger units of thought. Standards of accomplishment in terms of time prevent dawdling and the intrusion of irrelevant thoughts. Enforced rapid reading results either in an undesirable tenseness, or in the eventual mastery of more economical ways of grasping larger reading units."

Eurich's principles that are concerned primarily with comprehension are certainly not novel. Outlining of material read, as suggested by Eurich, has long been recognized as an effective method of gaining comprehension. Recitation, or active recall, has also been used successfully as a comprehension gaining device for many years. We have all experienced the mortification of pausing in our reading and discovering that we are unable to recall one significant fact which we have just read. Reading a paragraph or chapter and then, in our own words, attempting to summarize the chief ideas of the passage is a worth-while reading habit to develop.

It is one thing for the high-school student to know of such successful reading techniques — of itself worthless, according to Eurich — but it is quite different and of much more importance to have established the habit of using them consistently. How students shall be prevailed upon to practice these fundamental techniques of silent reading is a serious problem.



BOOK WEEK POSTER 1935.

Book Week will be observed in all schools and libraries of the United States during the week of November 17 to 23.

"Reading for Fun" is the theme for the week. This topic was selected because it stirs the imagination and suggests fresh explorations of children's books which have contributed the most real fun to reading and which challenge the output of the present and future to continue to give children a good time in the writing, illustrating, and publishing of books.

In connection with the observance there will be book exhibits, meetings of various educational, civic, and business groups, publicity stunts, bookshop visits, and a variety of classroom projects. The latter will comprise miniature displays for bookshelves and tables, birthday calendars, character impersonations, newspaper book reviews, and dramatizations of plays for children.

Silent-Reading Programs

A number of high schools and colleges have attempted recently to improve the reading skills of their students through definitely organized classes in silent reading. Successful programs have been conducted in the high schools connected with the University of Chicago (21), and Northwestern University (25). Courses in reading for the freshmen in the following colleges have been very successful: Smith College (2), University of Arkansas (9), Ohio State University (1), Nebraska Wesleyan University (3), and Stanford University. The following schools have considered their reading programs of doubtful value: Sacramento Junior College (23), State Teachers College, St. Cloud, Minnesota (27), and the high schools of Buffalo, New York (12).

Space does not permit the inclusion of descriptions and evaluations of the special-reading programs conducted in these schools. The fact that three of the schools reporting considered their special classes in reading of doubtful value gives us cause for reflection. With no intention of discrediting those who conducted the reading programs in these three schools, we should like to observe that teaching is still an art and students are only human. The techniques of silent reading can be taught successfully in classes where capable, inspiring teachers, using natural methods and sensible reading materials, recognize the individual differences of the students in their classes.

Strang has been quoted as stating that, "Enforced rapid reading results either in an undesirable tenseness, or in the eventual mastery of more economical ways of grasping larger reading units." Unless instructed properly some pupils will develop undesirable tenseness that will interfere with their reading efficiency and result in nullifying the benefits to be derived from reading instruction.

Traxler (22) has recognized the necessity of considering individual differences, stating that "there is ground for thinking that slow association rate may be so closely related to the retarded reading rate of slow readers that the teacher should not utilize the usual methods to get them to read more rapidly." At Smith College nearly one third of the poor freshmen readers were excused from special-reading instruction because it seemed to the experimenters that the students seemed capable of "complete self-direction, or else they were so settled in their slow habits that we feared any new plan of procedure might cause serious academic results."

Even in the three schools under consideration, practically all of the students were under the personal impression that they had greatly benefited from the special-reading instruction. However, when their improvement in reading was measured by objective criteria, whose validity might well be questioned, some of the students were found to have made a reading improvement that was less than might normally be expected in the length of the experimental period. In these same schools were students whose reading improvement, when measured by the same objective criteria, exceeded normal expectation. It is these latter students that demonstrate that improved techniques of reading can be acquired through definite practice in classes.

The students who seem not to benefit from special instruction do not prove that silent-reading instruction cannot be given successfully, but that they need special consideration. In this class would be found the students who need remedial-reading instruction. Such pupils would do well to master the fundamentals of reading on the elementary-school level before attempting to develop the higher reading skills that should be the objectives of high-school classes in the techniques of silent reading. Other stu-

dents have mastered the elementary-school fundamentals of reading, but, because of slow association rate, have reached the ceiling of their accomplishment in reading. No great improvement can be expected from such students. There are many who develop interfering attitudes when they discover that their accomplishment in reading is less than that of some natural competitor. They resent also being singled out as being especially deficient in reading. Such students need skillful handling. Whatever the condition or situation the teacher must recognize the individual differences of high-school students.

The need for improving the reading abilities of our high-school students is unquestioned, but the difficulties involved in accomplishing these objectives are indeed challenging. Granted that satisfactory reading materials are obtainable, and teachers are available who are capable of inspiring and directing high-school students in the development of improved habits of silent reading, the problem of the administration of a silent-reading program still remains.

Three general programs suggest themselves as means of accomplishing the improvement of silent reading in the high school: (1) An effort can be made to see that the best techniques of silent reading are practiced by the students in each of the regular classes. (2) Some one subject-matter class can be assigned the responsibility of developing habits of efficient reading. (3) Or, a special class can be organized with the improvement of the silent-reading abilities of the high-school students as the chief objective.

Silent-Reading Improvement Through Regular Classes

Strang (17), in discussing reading materials, recently stated: "It is possibly because of the satisfactory results obtained from the natural type of practice material that so little specially prepared practice paragraphs have been published. . . . The most natural method of promoting rapid recognition of large units of thought is to provide material highly charged with interest which the student has a keen desire to comprehend as rapidly as possible." The regular subjects of the high school are not always "charged with interest," except of the extrinsic type, but the student usually has a "keen desire to comprehend" the reading assignments as "rapidly as possible."

Wallace (24) has commented: "It is recommended that at least one period a week in all high-school classes be used for remedial reading. Ordinarily the regular lesson in history, sociology, geography, general science, etc., may be used as the material for the remedial work in reading."

It is likely that a general agreement could be secured to the proposition that the regular classroom teachers in our American high schools should devote more time in facilitating the development of better reading skills in their classes. Too many teachers are merely testers. Reading assignments are made in their classes naïvely, with the expectation that the students will somehow be able to report back the desired information. How the students are to secure the information to be reported back is strictly the business of the student and is no apparent concern of the teachers. It is a fair question to ponder whether the matter of improving the silent-reading abilities of high-school students can be trusted to the regular classroom teachers alone.

Silent-Reading Improvement Through a Selected Regular Class

Pitkin, Newton, and Langham (14), in discussing high-school students and reading skill, declare: "They will not pick it up casually while studying history, literature, or civics." These authors further say that "in the high-school years nearly all learning comes through reading, and development of this power to read is widely recognized as the responsibility of the English teacher. May we not, then, undertake this task as a regular part of the English course, securing material and problems largely from other courses and from life, and securing co-operation of other teachers? . . . Not a minute thus spent is stolen from 'English' or any other course."

Orientation and Special Classes

In some high schools will be found self-discovery and self-direction courses labeled "Orientation." These courses are usually concerned with the more personal and immediate problems of the entering student, such as orientation to high-school life, principles of mental hygiene, the choice of a vocation, methods of study, and the techniques of silent reading. Sometimes high schools have orientation courses under different labels, such as "Vocation" and "Oral English." Be the label what it may, courses of this type offer splendid opportunity to improve the silent-reading abilities of high-school students.

One who would propose the establishment of an additional subject for modern high schools, must run the gauntlet of criticism from curriculum specialists and hard-headed school-board members and school executives.

Some curriculum specialists who emphasize "integration" would likely be inclined to resist the proposal to add any more subjects to an already crowded curriculum. Lange (10) states that "the broad-fields and the unit-of-work curriculums are tending to displace the individual-subjects curriculum as the favored basic form of curriculum organization."

Nila B. Smith (18) states: "Now as a matter of fact reading is a tool; it has no subject matter of its own. Geography, history, and science all have their own content; even arithmetic has a subject matter peculiar to its field. But reading is not a subject; it is simply a tool which we use in getting subject matter from the other fields. Since this is the case, we are bound to have an artificial situation so long as we organize reading instruction in terms of the subject of reading." She continues: "The newer philosophies and psychologies are calling for a more functional teaching of reading, a type of instruction in which reading is taught largely as it enters into or flows out of children's interests and activities . . ."

The "integrationist" point of view finds strong support, but there are still some practical administrators who would maintain that any function or skill that is so vitally important as reading must be taught as a special subject if it is to receive adequate attention. Such administrators might like the plan for teaching the techniques of reading that is employed at Stanford University. Even the "integrationist" might find it possible to approve such a plan.

Stanford Special-Reading Class

For the past several years a course entitled "Techniques of Silent Reading" has been taught successfully at Stanford. The course is planned primarily for freshmen with silent-reading handicaps. Some of the best students attend the class, so that there is no stigma attached to attendance. Attendance in the class is strictly voluntary and university credit is not granted.

In addition to the regular, generally recognized, silent-reading materials, Stanford has used and developed a silent-reading manual entitled, "How to Read Rapidly and Well" (26) and a mimeographed reading rate sheet which they call a "Book-Mark."

The students are invited to bring to class their regular class text and outside reading books. Each student then reads with a time limit the material in which he is most interested. The "Book-Mark" is a convenient form for recording the words read per minute in each class period. Other careful records are made of the improvement of each student in reading rate and comprehension. The student is kept informed of his progress.

Conclusions

In this article the attempt has been made to present fairly both the difficulties and advantages involved in improving the reading abilities of high-school students. Though there may be differences of opinion as to the types of reading materials to be used, teaching methods to be employed, and school programs to be inaugurated, yet it is hoped that there can be general agreement on the following principles:

1. The few high-school students in need of remedial reading should receive individual attention.

2. All pupils should receive group instruction in the techniques of silent reading on the high-school level.

3. The silent-reading program prescription should be made for each high school according to the needs of the students, the teaching abilities of the instructors, and the psychological and philosophical beliefs of the curriculum-makers and the administrators.

4. The content of the reading materials should be of intrinsic merit and the methods used should be functional.

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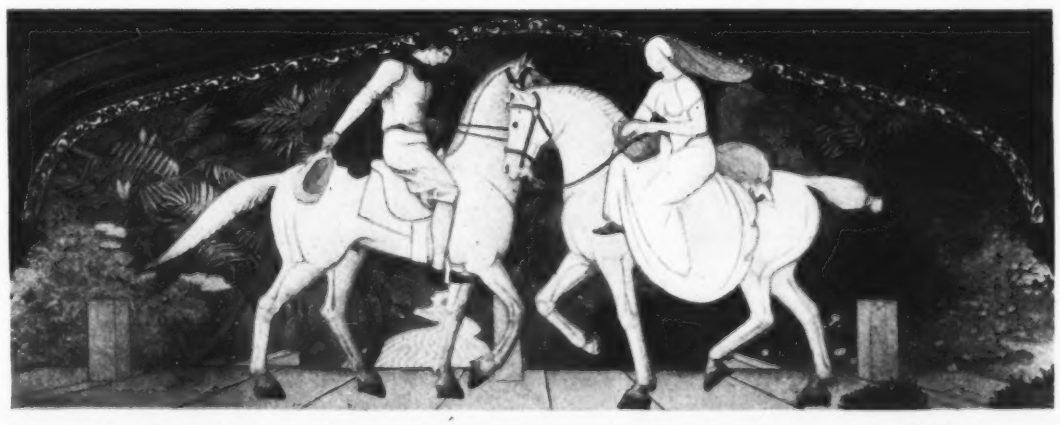

"EARLY SETTLERS," Washington Irving High School, New York City, N. Y. Painted by Barry Faulkner.

The Inglewood Teachers' *Salary Policy*

Henry A. Cross[1] *and Lionel De Silva*[2]

During the school year 1934–35, the board of education of Inglewood, California, adopted a salary policy consisting of schedules, standards, definitions, and procedures for the determination of salaries of certificated employees. This policy is reasonable, flexible, and nondiscriminatory, and utilizes salary bases which are professionally desirable.

Previously, several unsatisfactory attempts had been made to formulate an adequate and acceptable salary policy. In the fall of 1934, the superintendent of schools called upon each of the schools in the city to select one of its teachers to serve on a committee to formulate an improved salary policy. He designated one of these teachers as discussion leader, and this person was given the responsibility of organizing and directing committee procedure, discussions, and policies. These teachers, together with a chairman and a research secretary appointed by the superintendent, comprised the committee which met in and out of school hours from December until June. The resulting formulations, when completed, were submitted to the entire teacher group, in general conference, for suggestions. Three such conferences were held, during which desirable modifications were made and after which 92 per cent of the teachers, voting by secret ballot, approved the provisions. The report was then recommended to the superintendent for approval, and he, with no modification, recommended it to the board of education for approval and adoption. The board of education, after carefully studying the recommendations and making minor modifications, unanimously adopted them as the salary policy of the Inglewood city schools for the school year 1935–36.

All teachers in the schools were kept informed of the committee's progress by the distribution of complete minutes of each committee meeting on the day following each meeting, and by individual and group conferences between committee members and teachers of the schools which they represented.

Guiding Principles

The first task of the committee was to make and approve a statement of the problem. The next task was the organization and classification into a set of guiding principles of all pertinent principles, objectives, standards, and other guides dealing with the formulation of salary schedules and other salary provisions which the literature revealed, together with similar factors which the committee devised. An outline of these principles follows:

1. Qualifying principles. These principles dictate that the provisions should:

a) Be consistent with attributes, such as uniformity, nondiscrimination, reasonableness, fairness, and equity.

b) Keep within certain limitations such as legal requirements, ability of the district to pay, and approval of a large majority of the teachers affected.

c) Be consistent with educational trends.

d) Be consistent with the economic and social order.

2. Principles relating to purposes. These principles dictate that the provisions should:

a) Encourage personal improvement of teachers.

b) Provide for the improvement of selection and maintenance of personnel.

c) Provide for the improvement of personal relations.

d) Provide for the improvement of services which the board of education can render.

e) Provide for the improvement of relations between the school and community.

3. Principles relating to content. These dictate that the provisions should:

a) Utilize certain bases in the determination of teachers' salaries such as experience, training, merit, differences in services, and cost of living.

b) Provide standards for the bases used.

c) Provide for the establishment and operation of salary provisions.

d) Provide for every factor bearing on teachers' salaries.

e) Provide necessary and equitable adjustments for making the provisions operative.

f) Be presented in clear, concise, simple, orderly, and unambiguous fashion.

g) Involve the recognition of authority and practice considered as good.

4. Principles relating to making provisions operative. These dictate that:

a) Teachers and other interested parties should be kept continuously informed of the committee's work and progress.

b) The provisions should be approved by a large majority of the teachers for whom they are made.

c) The provisions should be recommended to the superintendent of schools for adoption if, and when, approved by a large majority of the teachers.

d) The committee should plan for and stand ready to render any service that might contribute to the acceptance of the salary provisions.

5. Principles relating to change.

a) The provisions should include a statement relative to modifications of, deletions of, or additions to the salary provisions in the event of its adoption.

With this outline expanded in great detail, the committee felt that it had a dependable set of principles to guide it in its task. Not only did these principles serve as a guide, but careful analysis of the salary policy reveals that they obtain in the provisions themselves and have become an integral part of the salary policy.

An outstanding example of teacher participation in school administration is the formulation of the salary schedule in Inglewood, California. How the work was carried on is told in the present article by two teachers who participated. The resulting schedule is worth studying as a scientific and socially effective instrument. — *Editor.*

Experience and Training as Factors

The committee next decided upon the bases to be used and the methods for using them in the formulation of salary provisions.

Experience was considered first. Since it is a factor used in most salary schedules, since it is legally usable in the State of California, and since there is considerable objective evidence that it contributes to the improvement of teaching ability, it was accepted as one of the bases. From a careful weighing of common observation and scientific data, improvement due to experience was considered as accelerating positively for the first six years, as increasing without acceleration from six to ten years, and as negligible thereafter. Increases in salary due to experience were arranged accordingly.

By and large, training — as indicated by work completed in colleges or universities — is accompanied by improvement in teaching, glaring exceptions notwithstanding. Too, training is subject to objective measurement. The committee, therefore, adopted training as the basis for classifying teachers for salary purposes into the following four groups:

Group I: Teachers with less than four years of college training.

Group II: Teachers with a bachelor's degree.

Group III: Teachers with a master's degree.

Group IV: Teachers with a master's degree and an additional year of postgraduate work, or those who have been accepted for the doctor's degree.

Each succeeding group receives more than the preceding group in an amount partially necessary (completely necessary would be more desirable) to qualify for the group, limited by the ability of the district to pay, reasonableness and certain other factors.

Not only does progress from one group to another depend upon training, but progress within any one group is dependent upon meeting certain training requirements known as conditions. These vary with differences in training and experience and are:

Condition A: Four semester units of work completed during the preceding three years.

Condition B: Six semester units of work completed during the preceding three years.

Condition C: Four semester units of work completed during the preceding five years.

Every five years after reaching the tenth year, Condition C, is fulfilled, entitles a teacher to a slight increase in salary so long as he stays in the system. Thus, there is no salary maximum in these provisions. True, the increase is not enormous, but the psychological benefits of opportunity to increase indefinitely is provided and will undoubtedly exert a strong professional influence.

Travel, research, significant contributions to education, and similar items are accepted, under certain conditions, as equivalents to institutional training for advancement within a group but not for transfer from one group to another.

Merit and Service

Merit as a partial determiner of salary is a basis dear to the heart of school administrators. But, how to determine merit has been the stumblingblock. In California, "teachers of beginners shall be ranked in the salary schedule with the highest salaried teachers in the elementary grades of equal training and experience. Uniform allowance may be made in any schedule of salaries for years of training and years of service."[3] This has been legally interpreted to hold for persons performing *like services,* while for unlike services salaries may differ. Consequently, the committee defined the following teaching positions:

1. Interpretation teacher.
2. Research teacher.
3. Regular teacher.
4. Special service teacher.
5. Assistant teacher.

An interpretation teacher is one whose duties are those of a regular teacher plus teaching which may be observed by others and the interpretation of this teaching to others. A research teacher is one whose duties are those of a regular teacher plus teaching research for the purpose of revealing for the teachers' own or others' benefit such items or procedures as will improve teaching. A special-service teacher is one whose duties include the fulfillment of special assignments, teaching or otherwise. An assistant teacher is one whose duties are those of assisting any teacher. The possession of varying amounts of merit evaluated through certain standardized procedure will determine the placement of teachers in one or the other of these positions with consequent legally permissible differences in salary. Unless otherwise designated, a teacher is a regular teacher. This plan has the advantage of being a legal means of rewarding superior merit on a functional basis and, at the same time, it recognizes sound social philosophy by giving teachers who are unable to meet a normal teaching situation, work within their ability to perform at a salary compatible with the services they render.

Grades Taught

Since, in any K-8 grade system, necessary personal qualifications, training, duties, and responsibilities are approximately the same for all teachers and since the implications of the legal clause referred to above clearly point in the direction of a single-salary schedule, the committee decided that the grade taught should not be a factor in the determination of salaries.

[1]Discussion Leader, Committee for Teachers' Salary Provisions, Inglewood, California.

[2]Secretary of Committee and Research Director, Committee for Teachers' Salary Provisions, Inglewood, California.

[3]School Code. State of California, Section 5.734, pp. 260–261.

In the State of California "females employed as teachers in the public schools of this state shall in all cases receive the same compensation as is allowed male teachers for *like services* when holding the same grade certificates."[4] The committee concluded that economic responsibility and conditions of supply and demand of men teachers, by and large, entitle them to more salary than women. Again, the principle of unlike services in the form of extra services was employed to make this possible. By this provision, men may receive more than women but, for this increased compensation, must perform extra duties, such as supervising extracurricular activities, supervising playgrounds and restrooms, and supervising special projects.

Basic Salary and Increment

The next step of the committee was that of determining amounts of salaries. In doing this, the following two devices, suggested by the work of Hull, Ford, Hart, and Peterson, were employed:

1. Basic salary (**b**).
2. Increment (**i**).

There are certain professional and social responsibilities which a teacher must assume, and a certain basic salary is needed to meet them. Every teacher who carries a full teaching load should receive no less than this. It should be such as to enable a teacher to live on a "minimum comfort level" for which Tugwell suggests $2,000. However, traditional salaries, the ability of the district to pay, and "what the traffic will bear" dictated $1,400 as the basic salary. The committee was of the opinion that this basic salary should be adjusted in the amount of 10 per cent and in the direction of the fluctuation whenever teachers' costs of living as determined by the U. S. Bureau of Labor price indices for the local area weighted for teachers' costs of living in the local area varied 10 per cent, with June, 1932, taken as a point of reference.[5] This, however, was one of the items deleted by the board of education.

Increment is the unit used to determine differences in salary which should exist among teachers because of training, experience, merit, and other bases. It is the unit used to determine the amount that teachers receive in addition to basic salary. The number of increments belonging to a given teacher-status was determined by existing salary conditions, trial and error, and by other factors referred to above. These numbers represent relations which should obtain at all times between teachers because of training, experience, and other bases and should not vary, except in the case of the general reorganization of the salary policy, no matter what the amount of "**i**" might be. The amount of the increment may be varied in keeping with the revenues of the district available for teachers' salaries, and the sum of "**i**'s" should truly represent the difference between the amount necessary for basic salaries and the maximum amount that the district can reasonably be expected to pay for teachers' salaries. In determining the amount of increment, the following formula is used:

$$\text{Amount of "i"} = \frac{\text{Budget allowance for teacher's salaries} - \text{number of teachers} \times \text{basic salary}}{\Sigma\, i}$$

Using this formula, "**i**" was set at $4.50 for the year 1935–36. From year to year, "**i**" is the factor which will permit flexibility in salaries that will always be within the ability of the district to pay, whereas the basic salary should remain constant within the limits of the cost of living.

Using these two factors, basic salary and increment, the following schedule was established for regular teachers:

Year of Teaching in Inglewood City Schools	Group I	Group II	Group III	Group IV
1	b −	b	b + 33i	b + 55i
2		b + 8i	b + 42i	b + 64i
3		b + 17i	b + 52i	b + 74i
Condition		A	B	B
4		b + 27i	b + 63i	b + 85i
5		b + 38i	b + 75i	b + 97i
6		b + 50i	b + 88i	b + 110i
Condition		A	B	B
7	b + 43i	b + 62i	b + 101i	b + 123i
8	b + 55i	b + 74i	b + 114i	b + 136i
9	b + 67i	b + 86i	b + 127i	b + 149i
Condition	A	B	B	B
10	b + 79i	b + 98i	b + 140i	b + 162i
11	b + 79i	b + 98i	b + 140i	b + 162i
12	b + 79i	b + 98i	b + 140i	b + 162i
13	b + 79i	b + 98i	b + 140i	b + 162i
14	b + 79i	b + 98i	b + 140i	b + 162i
Condition	C	C	C	C
15	b + 84i	b + 103i	b + 145i	b + 167i
16	b + 84i	b + 103i	b + 145i	b + 167i
17	b + 84i	b + 103i	b + 145i	b + 167i
18	b + 84i	b + 103i	b + 145i	b + 167i
19	b + 84i	b + 103i	b + 145i	b + 167i
Condition	C	C	C	C
20	b + 89i	b + 108i	b + 150i	b + 172i
21	b + 89i	b + 108i	b + 150i	b + 172i
22	b + 89i	b + 108i	b + 150i	b + 172i
23	b + 89i	b + 108i	b + 150i	b + 172i
24	b + 89i	b + 108i	b + 150i	b + 172i
Condition	C	C	C	C
25	b + 94i	b + 113i	b + 155i	b + 177i

SCHEME FOR COMPUTING SALARIES OF TEACHERS IN THE INGLEWOOD, CALIFORNIA, SCHOOLS

The Schedule Applied

To illustrate the determination of the salary for a given teacher: A regular teacher who is in his seventh year of teaching in the Inglewood city schools and who possesses a master's degree and who has met Condition "B" during the preceding three years is entitled, according to the schedule, to **b** ($1,400) + 101**i** (101 × $4.50 or $454.50) or a total of $1,854.50.

The salaries of teachers other than regular teachers vary from those established by this schedule. An interpretation teacher receives a regular teacher's salary plus 25**i**; a research teacher receives a regular teacher's salary plus 12**i**; a special-service teacher receives the basic salary; and an assistant teacher receives the basic salary minus $200.

In addition to bases and schedules used for determining salaries, the salary policy also defines types of teachers and makes provisions for sabbatical and other leaves of absence, adjustments necessary to put the policy into operation, modification of salary policy procedure, and certain miscellaneous situations.

After the formulation of salary provisions for teachers, the same structure and procedures were utilized to formulate salary provisions for principals, directors, and supervisors with differences appearing in training-groups into which they were classified as follows:

Group I: Bachelor's degree or less.
Group II: Master's degree.
Group III: Master's degree and an additional year of work, or acceptance for the doctorate.
Group IV: Doctor's degree.

Differences also appear in the positions of principals, directors, and supervisors. Four types of positions were suggested, as given below, for which more or less salary in terms of a number of increments is paid after classification on the bases of training and experience.

1. Supervising principal.
2. Research principal.
3. Principal.
4. Assistant principal.

Even before the salary policy was adopted, June 18, 1935, its influence was evidenced by teacher enrollment in university courses. Since its adoption, such enrollment has increased. Classification of teachers according to the various types of positions will be made during the current year. With intelligent and effective guidance, these positions can serve as a supervisory device of considerable value. This value is already becoming apparent. The same may be said for administrative aspects of the policy.

[4]School Code, State of California, Section 5.730, pp. 260–261.
[5]Eells, Walter Crosby, *Teachers' Salaries and the Cost of Living*. Stanford University Press, 1933, p. 15.

FEDERAL AID for School-Building Construction

Principles Upon Which a Permanent Federal Policy Should be Based

Gerald M. Weller, Ed.D.[1]

The Problem of Financing Adequate Schoolhousing

Up to two years ago the vital importance of state participation in local district school-building construction was recognized only by those students of school finance and the educational commissions who had seriously studied the problem. The general inadequacy of the American elementary-school plant, especially in the smaller districts, has been commented upon for years, but few states have been sufficiently awakened to concern themselves with measures necessary to remedy the situation.

It is true that Delaware since 1927 has been successfully financing all of its local school-building construction. Furthermore, such states as Arkansas, Minnesota, Ohio, Rhode Island, and Wisconsin have granted limited aid for urban and rural schools; while Alabama, Missouri, New York, Oklahoma, and South Carolina have made similar grants, but for rural schools only. The rest of the 37 states have assumed no interest in the problem.

Present State Practices Inadequate. The most that can be said for the practices referred to is that they are distributive systems which provide meager financial aid, largely to encourage consolidation and the abandonment of inadequate structures. They combine the theory of stimulation with the philosophy underlying poor-aid laws. Perhaps the states are not to be entirely blamed for this lack of interest in guaranteeing all children structurally and educationally satisfactory school plants. Thus far, less than a half dozen plans have been proposed for the distribution of state aid, and none have proved financially sound or practical.[2]

Federal Aid Now an Incentive to Action

The problem of federal aid, which formerly seemed to be of merely academic interest, emerged two years ago into one of nation-wide concern. This came about following the entrance of the Federal Government into the field of local school-building financing in the fall of 1933. This unforseen action came as a result of three major factors. The first was a practically complete cessation of school-building construction in the nation as a result of depression conditions. The second was the desire of the government to

[1]San Fernando Junior-Senior High School, San Fernando, California.

[2]"A Plan for State Equalization of Capital Outlays for Public School Buildings" by Gerald M. Weller, AMERICAN SCHOOL BOARD JOURNAL, August, 1935.

put men to work as a means of relief. The third was an influential and rapidly growing body of opinion which sees education as a matter of national concern. The net result of the interaction of these forces was to bring the government into the picture, and to speed up by perhaps a generation the provision of more adequate schoolhousing through state and federal participation in its financing.

How Federal Aid is Granted. With the creation of the CWA on November 15, 1933, repairs to schools were designated as civil works which could be financed by the Federal Emergency Administration of Public Works. During 1934 the PWA allotted just $100,000,000 for public-school buildings. The basis of aid provided was grants by the government not in excess of 30 per cent of the cost of labor and material employed and equipment required. Under the Emergency Relief Appropriation Act of 1935 this was changed to a 45 per cent grant by the government. Communities may obtain the balance of the cost of projects through taxation, district bonding, or a government loan secured by bonds.

Basis of Federal Aid Not Sound. While this plan of federal aid is of the utmost importance, it is neither educationally nor financially sound. The reasons for this are that:

1. It involves direct government aid to districts rather than the use of the state as the intermediary from which aid should be given local administrative units.

2. It is not based upon the principles of educational equalization as adopted in the states which are attempting to provide minimum educational programs. Equalization involves the factors of *ability* and *effort,* neither recognized by the existing federal-aid plan under which all districts receive aid on the same basis.

3. It disregards the factor of *need.* No plan of state or federal building aid can be sound or successful unless the unit of schoolhousing need is defined and a technique for its measurement is developed.

The Elements of a Sound Federal Finance Plan

In view of the strong probability that the government will embark upon a permanent policy of aid for school-building construction as a sequel to the present emergency program, it is essential that the elements of a sound finance plan be set up for such a program.

Equalization Principles Fundamental. Any satisfactory plan must be founded upon the principles of equalization. From the point of view of a state, equalization means the distribution of funds derived from the state at large, in such a manner that a state-defined minimum educational program will be guaranteed to every child, and the tax load for the support of such a program will be distributed equally upon all the taxable wealth of the state.

In order to equalize a capital outlay or current-expense program it is necessary to (1) demand of all districts a minimum state-defined program; (2) finance this program by distributing the load upon all districts in accordance with their taxpaying ability; and (3) allow districts freedom to exceed the minimum program. This may be accomplished by determining: (1) an acceptable cost of the minimum offering; (2) the uniform local tax rate to be levied against the wealth of every district participating in the equalization plan; and (3) the difference between the amount raised in each district by this tax and cost of its program — this sum representing the state aid to be contributed.

Principles and Procedures for Federal and State Action

Where both state and federal governments are concerned, the following principles and procedures may well operate:

1. Both state and government must agree upon minimum school-building standards.

2. The principals must jointly define a minimum unit of schoolhousing need and develop objective techniques for the measurement of district and state housing needs.

3. Both parties must jointly set up a plan of triple financial participation. Such a plan must involve federal aid to the states on a basis of the factors of ability and effort, and state aid to districts in turn so that local tax loads for the minimum essential building programs can be equalized.

4. States and districts should be encouraged to exceed the minimum building program.

In order to put these principles into operation, in the event that the state and federal governments participate in district capital outlay expenditures, the following specific procedures are necessary:

1. The determination of minimum school-building standards that must be conformed to in any state desiring federal aid.

2. The definition of a minimum unit of schoolhousing need.

3. The development of a method of measuring housing need in each district and then of the state as a whole.

4. The determination of a reasonable local cost per unit of housing need as a basis for aid in joint financing.

5. The determination of the relative ability of each state as compared with the 47 others to finance housing needs.

6. The selection of a proper key state as the point of equalization, all states with wealth per unit of need below which would be entitled to share in the federal aid.

7. Measures of effort to be required of all states participating in the plan.

8. A technique for determining the relative degree to which state and government would participate in each state's minimum housing program for any one fiscal year.

9. Setting up in Washington and in each state, capital-outlay-equalization commissions to be responsible for the financing and construction of schoolhousing among and within states.

10. Establishment of a national capital-outlay-equalization fund, preferably from new revenues, from which annual distribution may be made to the states.

The Role of the Government

One basic principle of school finance is that educational undertakings should not be expanded until provisions have been made for those already in existence. Elementary schools are first in order of importance and should be accorded priority in any new finance plan. Hence any permanent plan of federal aid would do well to limit itself to the elementary schools at first.

State and Federal Relationships. In fixing the relative spheres of the state and federal governments in a plan of federal aid, it is fundamental that the government should not deal directly with local districts. It should rather deal directly with the state as represented by a state capital-outlay-equalization division in the state department of education. Such a division should include present divisions of schoolhouse planning. State governments are closer to the needs and aspirations of local units and are also in position to check results better than a remote, centralized authority. The government is entitled to a complete financial audit, general supervision of, and detailed reports concerning operations — financial and structural — but the distribution of funds, the immediate supervision of projects, and the general administration within each state should be in the hands of state authorities.

Minimum Building Standards. The state and federal governments must agree upon minimum standards of school-building construction. This in turn requires the determination of a minimum unit of school-building needs. This might well be defined in general as that classroom with appurtenances which (1) provides seating and working capacity for a specified number of pupils; (2) provides permanent instructional equipment for a minimum educational program; (3) meets nationally adopted school-building standards; and (4) is built in conformity with a guide for the planning of school buildings, such as that recommended by the National Council on Schoolhouse Construction. It should also meet state school-code provisions.

The Determination of Housing Needs. As in the case of state aid, a plan of federal aid must be based upon right techniques for the determination of housing need in local districts. This involves three procedures: First, it is necessary to determine on a minimum basis the total number of units of housing need, district by district, that makes up a state's elementary-school plant. This requires setting up a standard pupil-unit-of-need ratio for the nation as a whole. Second, it is necessary that a study be made in each state by officials trained in the techniques of school-building surveys of plant needs. These studies must deal with such factors as the type of community and its probable future social and economic development, present and future trends of population, probable growth of school population, and educational and physical adequacy of the present plant. Third, a rapid preliminary survey will be necessary to show urgent needs which should be cared for immediately.

The Standard Cost Per Unit of Need. It will be necessary to determine a standard cost figure for the unit of need, upon which joint financial participation will be based. This may well be a national index figure from which local variations can be estimated, or state and local indices for various regions in the country where cost differentials are quite pronounced. This is a technical matter for which state- and nation-wide studies of building-material prices, wages, and the relative merits of various types of construction are needed.

Measures of State Ability to Finance Schoolhousing. The economic ability of each state to participate must be determined through a composite measure, including such factors as tangible wealth, annual total income, current income, indices of economic resources, and perhaps others. Dividing such a composite measure expressed in dollars by the total number of units of need, which a full replacement of the state school elementary plant on a minimum basis would necessitate, would give the wealth back of the present actual units of need. A distribution of this wealth per unit of housing need of each of the 48 states would show the relative ability of states to finance school building.

The Choice of the Key State. Equalization requires the choice of some point of wealth per unit of need, those states with wealth below which would be entitled to share in the aid plan. Where federal moneys are concerned, all states will naturally hope to share, and hence it would be politically necessary to select some point not far, perhaps, above that represented by the state of greatest wealth per unit of need, so all could then participate to varying degrees.

The Basis of Participation

The Basis of Federal and State Participation. In the case of local districts there are two measures of effort: (1) the uniform local tax rate required of all, and (2) that specified percentage of legal bonding capacity that must be impaired. It would seem that the measure of effort for each state would be twofold.

(Concluded on Page 81)

Mr. William Dobson *Moseys Around a Little*

New Doctrine for Monroe — XII

Brooke W. Hills

That bookman extraordinary, Mr. William Dobson — "Bill," to his friends in the state where Monroe cozily nestles — was all out of sorts. Mr. Dobson was very much of the opinion that the world is too backwards. In fact, he was more than ready to tell the whole world exactly what he thought of the situation in which he suddenly found himself; but while Mr. Dobson did derive some gloomy satisfaction in talking to himself, the much larger audience he craved was not waiting around to be told.

The truth is, Mr. Dobson had gone a-traveling. As has been mentioned before, traveling was one of the easiest things this portly purveyor of textbooks did. When there was action within those precincts where he lived, breathed, and made a pretty comfortable living, it was reasonable to expect to find this wily hero of many an educational skirmish right up in the front-line trenches, delightedly looking the landscape over with a practiced eye and an intellect sharpened for any emergency. But in this instance, Mr. Dobson had wandered widely from his own bailiwick. He was by way of being a traveler in a far country. He was off his own beat. He was out of luck. Speaking more specifically, Mr. William Dobson, hasting home from the fall convention, whirling along the broad highway that stretches its homocidial lanes from state to state, had suddenly and without apparent reason ceased hasting. The fundamental reason for the quick shift from his visions of a warm seat by the fire at home, and a little snack before seeking his own comfortable bed — this sudden awakening to the practical realities of the immediate present, was the important circumstance that the car declined to go any further. Reason enough.

Gas? Plenty. Engine turn over? Heavens, yes! Clutch slipping? No; a thousand times, no, as he kicked the pedal with an impatient foot. Eventually, Mr. Dobson, wallowing around in the cold rain of a particularly black night in late autumn, reached the unhappy conclusion that he had snapped a rear axle. Reason enough for the sudden termination of his flight homeward. Reason enough, too, for his rapidly mounting desire to locate a large and appreciative audience. . . . Try it yourself, before you condemn him for his sudden urge toward eloquence.

Mr. Dobson woke up early the next morning to find himself in a strange room in a tourist's lodge, with a newly developed pain in his back where he had lain on a knob in the straw mattress. This unpleasant affliction, however, was a mere trifle as compared with the pain in his mind when he learned from the garage man who had towed him in the night before, that while he'd do his cussedest to get the car out by noon he didn't know if he could fetch it by that time; and if he were in Bill's place, he'd mosey around town a while.

"And why," gloomily queried Mr. Dobson. "Why should *I* want to look *this* place over?"

"Well," was the aggrieved answer, "this is Blackburg, ain't it?"

"I don't know," said Mr. Dobson, truthfully enough. "Is it?"

"It is," in a tone which seemed to imply that having seen Blackburg once there was little in life left to look forward to.

"*Why* is it Blackburg?" inquired the persistent Mr. Dobson.

There being no immediate answer to this question, Mr. Dobson stalked forth into the gladness of an eight o'clock Blackburg morning, facing the pleasant prospect of a suggested four hours of moseying.

"This," said he bitterly to himself, "is what I get for coming to *this* town. Is Blackburg a good town? No; Blackburg is *not* a good town. Why? Well, did I ever bust a rear axle in any other town? No, I never did before. Should I get square with Blackburg for this? I should, but how? . . . how?" and a vindictive look swept across the expanse of Mr. Dobson's face. "By gosh, *I* know what I'll do. I'll call on the superintendent of schools, and *sell him some of our readers!*" Hardened as he was, Bill shuddered as he thought of this series . . . they *are* pretty dreadful. . . .

Yes, the Blackburg superintendent was in, right in there. Mr. Mugford shooed out a couple of panicky youngsters, and extended the hand of fellowship. Mr. Mugford was very glad to see Mr. Dobson. Mr. Mugford had a very high regard for the company whose representative filled the greater part of his office. In fact, anyone connected with this company was a welcome visitor. . . . While the appropriation for books, unfortunately, was about exhausted, of course there was always the chance there might be a change a little later; he would be happy indeed to add these books to his samples and examine them when he could give them the consideration he was sure they deserved.

Bill noted with interest the distinguished collection of samples already acquired by Mr. Mugford for future examination. His practiced glance roved across the shelves of volumes, all of recent vintage. . . . Where were the books of yesteryear? . . . Oh, sure; "any sample books you wish to discard for a reasonable price?" . . . It happens, once in a while.

"Well," thought Bill, "if this bird can sell these readers to anyone, Lord bless him! Let him go ahead. It's more than I can do."

These pleasant preliminaries of a professional character having been concluded, Mr. Dobson leaned back and inquired,

"How're things going?"

"Awful!" was the emphatic answer. "Everything was going just as well as usual here until a couple of months ago; and then I got stuck with a teacher, and since then there's been nothing but trouble. Although," very hastily, "of course, I'll get it straightened out."

"Of course," agreed Mr. Dobson. And more to make conversation than anything else, "Was he very terrible?"

"Terrible?" ejaculated Mr. Mugford with an injured look. "I'll say he was! Why, before I got rid of him, in less'n six weeks he got the discipline of this school in such a mess it'll take me a good year to lick it into shape again. Yes, sir; that's just what he did. Why, that infernal tramp had those senior boys so lined up, it was all I could do to keep them from going on a strike when they heard I bounced him out. But I'll make 'em stand around!" And Mr. Mugford gave his best professional scowl as he considered the outraged dignity of the Blackburg school.

"I bet you will," encouraged the mildly interested Mr. Dobson. "What ever became of this fellow?"

"Say, now, that's queer you and I should be sitting here talking about that bum," commented Mr. Mugford, happy in a sympathetic audience. "Wait a second! Now, here's something I got just the other day that shows chickens come home to roost, every single time. What do you think of *this?*"

And with great triumph Mr. Mugford spread before the astonished gaze of Mr. William Dobson a typed letter, considerably soiled from much appreciative handling, a sheet bearing the ornate heading

THE MONROE ITEM

The Weekly Welcome Visitor in Beautiful Monroe

"Go ahead and read it," said Mr. Mugford in high delight at the tremendous interest displayed on his visitor's countenance.

This generous invitation on the part of the Blackburg superintendent of schools was wholly unnecessary. Mr. Dobson was only too willing to oblige. We think we are justified in saying that Mr. Dobson would cheerfully have committed murder, would certainly have been the cause of battle and sudden death in this office, had the opportunity for a further reading been denied him. Busted rear axles were forgotten in the excitement of the moment; painful cricks in one's back became so many blessings in the light of this happy circumstance. Mr. Dobson went ahead and read:

It is our understanding that one of our new teachers, a young man who calls himself "Peter Barron," was recently employed in your school system.

As a news organ, dedicated to the best interests of the community which we represent, we are writing to inquire confidentially as to the record he made in your school, and especially as to the circumstances connected with his leaving.

This inquiry is prompted entirely by our interest in the welfare of our school children. Since our newly appointed superintendent, a Smith B. Hamilton, has given us but the vaguest information in answer to our repeated questions, we turn to you as a last resort. An early reply to this letter will be greatly appreciated.

Editor Short's name was signed to the communication.

"Well, I'll be darned!" observed Mr. Dobson. "What do you know about *that?*"

"Pretty hot stuff, isn't it?" replied the gratified Mr. Mugford. "But you haven't heard the whole story yet, not by a jugful. I thought it over, and made up my mind I'd better get ahold first of this editor on the phone, and find out what all the trouble is before I answered the letter.

Did I get an earful! Whew!" And he waved his hand by way of emphasis.

"Did Short loosen up much?" inquired Mr. Dobson, trying hard to keep his eagerness within limits.

"Much? I'll say he did!" And to prove his point, Mugford proceeded to regale his visitor with all the contents of the jugful he could remember on the spur of the moment.

"It's the real goods and a yard wide," gloated the gentleman from Blackburg. With a wink of intense shrewdness; "I know it's true, because this editor told me the name of the Monroe teacher who gave him the dope. He's a man named Tyrone, and he's been teaching there at least twenty-five years, and he's about the only person who knows what it's all about."

To the intently listening Mr. Dobson, it was plainly evident that his friend, Mr. Smith B. Hamilton, no matter what methods he might be using, at all events was not exactly permitting the schools of Monroe to succumb to a state of dry-rot. Rumors which had reached him from time to time during the fall, some of which had puzzled him, now blended with Short's version as related by Mugford, and gave him a pretty fair idea of the situation. "So Tyrone is on the war path already," he meditated. "Gosh I wonder if Hamilton's on to him?"

"I'd give this fellow Hamilton a friendly tip," said the high-minded Mr. Mugford, "if I didn't know darned well he and this tramp Barron are two of a kind. My, oh my, what a team they must make! This man Tyrone must be a pretty square shooter. I don't blame him for putting up a holler when he sees a school turned over to a lot of prize fighters and wrestlers who get up in front and sling boys around the stage and get the whole school to yelling their heads off around the place. Yes, *sir!* It's plain enough this new superintendent must be about as big a faker as ever came down the pike. No wonder he jumped at a chance to line up with a fellow like Barron. They *ought* to be showed up, I'll tell you!"

"Well," said Bill, having waited a suitable moment to show his astonishment and concern. "I don't suppose you've gotten around to writing an answer to that letter yet, have you?"

"Oh, yes, I have," replied Mugford. "I feel it's my professional duty to let these good people in Monroe know they'd better get after that Barron with a pretty sharp stick, after the way he cut up around this place, and especially since he's starting to pull the same stuff there. Take a look at it!"

Mr. Dobson promptly obliged.

Your inquiry concerning Peter Barron has been received. This young man was a teacher in Blackburg for about five weeks, and left town suddenly and without giving any advance notice, whatever.

We do not care to make public the reasons for his sudden departure, since it is not our policy to give out information which might prevent him from getting another chance, unless we are particularly requested to do so by the prospective employer. In this case, the employing agent in your community has made no inquiry, whatever.

"That," said Mr. Mugford with an air of pride, "is what *I* call *some* letter."

" 'Some letter' is right," agreed Mr. Dobson.

"Just enough to put them on their guard and yet nothing in it that'd look as if I am trying to persecute him."

"Yes, this *is* just enough," thoughtfully observed Bill.

"Nothing like being careful, is there?" from the complacent Mr. Mugford.

Very shortly afterward, Mr. Dobson bowed himself out of the office of the professionally minded leader of the Blackburg public schools; and in an incredibly short time, his car retrieved from the ministrations of the repair man, had pushed his portly figure through the door on the driver's side; and, to use his own homely phraseology, had "lit out of the place as if every devil in Hades was after him with a stop sign in one hand, and a red-hot poker in the other."

Had it been possible for anyone to catch even a fleeting glimpse of his face, it would have appeared that something had recently happened to cause Mr. Dobson to recast his pessimistic views concerning the pleasures of four hours' moseying around Blackburg. Something surely had. Flowers beside the road bloomed more brightly; rivulets purled more sweetly; probably the lambkins gamboling on the hillsides would have capered around even more blithely, had there been any to caper — so it seemed to Mr. Dobson as he rushed past, his nose tip-tilted on high, even as the war-horse is said to scent the battle from afar. For action, and plenty of it, apparently, was lurking around the corner . . . and this corner was very near at hand. In fact, it was growing nearer as rapidly as a slightly ponderous middle-aged distributor of school books can push a good car with a brand-new rear axle.

"Humph!" bubbled Mr. Dobson. "That double-crossing Tyrone! Good thing for you, Smith B. Hamilton, I got stuck back there in Blackburg. 'Chickens come home to roost?' You bet they do, and I'm the boy to tell 'em where to sit!" With these and similar expressions of self-congratulation, the energetic William rushed across the long bridge, tore down a winding hill, and five minutes later swept majestically to the front door of the Monroe high school, dove up the steps, and hurled his two hundred and fifty pounds of breathless bookman into the office.

"Where's Smith B.?" demanded this unexpected apparition of the surprised Miss Ross.

And in another instant, Mr. Dobson, having carefully closed all doors to Hamilton's private quarters, dragged a chair close to the desk of his friend; and with a look over his shoulder, presumably to make certain he had not been followed, observed in a sepulchral whisper,

"They're after you!"

In some alarm Hamilton looked quickly around the room. Everything seemed to be precisely the same as five minutes before. Turning to his agitated visitor,

"Bill Dobson, how do you get this way? What do you mean, 'They're after me'? *Who's* after me? What's the matter with you, anyhow?"

With a reproachful look and another and a hitch of the chair,

"Smith, get a load of this!"

"Get a load of *what?"* demanded the mystified and thoroughly astonished Hamilton.

It's very probable Mr. Dobson would have proceeded to deliver then and there the load which he had been carrying for the last 75 miles in his mad dash across country, had there not come, just at that instant, the sound of loud voices, a crash at the door, and a wrathful admonition to "Get in there, you!" accompanied by the quick exclamation of Miss Ross. With an anguished "I told you so, Smith!" Mr. Dobson whirled around, possibly to receive the wounds in front, possibly to join Hamilton in the common cause, and beheld —

Mr. Jackson R. Tyrone, covered with mud and burdocks from head to foot, a stout branch of a tree in one hand which he waved as a general leads his forces to battle, alternating this with a good imitation of the same gesture by means of a squirming small boy whom he held firmly by the scruff of the neck.

"Mr. Tyrone!" exclaimed Hamilton. "What on earth is the trouble?"

Tyrone? Aha, thought Mr. Dobson, nervously, So *this* is the representative of "the good people in Monroe."

"Billy Esmay, too! How do *you* happen to be here in this condition?" And Hamilton walked around the desk and confronted the two.

"He was the only one I could catch!" barked the angry Tyrone.

"Didn't ketch me," retorted the boy. "I was the only guy who didn't run."

"Don't give me any more of your lip, young fellow," snarled his captor. And then, apparently noticing for the first time the presence of a stranger, with a sudden resumption of ruffled dignity,

"I regret very much, Mr. Hamilton, that what should have been a pleasant and profitable afternoon has been turned into a disgraceful exhibition of rowdyism by this boy and a dozen others just like him. I shall be glad to let you know what has happened, as soon as I may do so without interrupting you and your visitor."

"Oh, go right ahead!" hastily volunteered the wondering Mr. Dobson. "Don't mind *me."*

"Billy, you may go down stairs and get cleaned up, and when you are through you may wait for me in the library," directed Hamilton. As the boy with a last look of defiance at Tyrone turned and left the room, the veteran of 25 years of self-acknowledged good and faithful service in the schools of Monroe sank wearily into the nearest chair.

There was a moment of thoughtful silence, and then,

"Young vipers!" exclaimed Mr. Tyrone by way of expressing his first and possibly best thought.

Mr. Dobson, prepared for anything, glanced hastily about him with every indication on his face that this pleasant comment probably referred to another invasion which had escaped his notice in the present crowded moments; cautiously then he leaned back as Tyrone explained,

"That's what *I* think of them."

Relieved for the moment, Mr. Dobson vigorously nodded his head several times to indicate his sympathy. Noting that the eye of the speaker was turned in his direction, Mr. Dobson again nodded his head. Under the present circumstances, he reasoned, there was no harm in being a little prudent. If it pleased the gentleman to characterize the youth of Monroe by this epithet, it was perfectly OK with Bill.

"At the last faculty meeting, Mr. Hamilton, you told us you believed in bringing clubs into the school," went on Tyrone.

"You certainly fetched a good one for a starter," complimented Mr. Dobson, who, in his slightly muddled state of mind thought the reference

(Continued on Page 58)

Initial Steps in Applying a School-Health Program

J. C. Mitchell[1]

The Commonwealth Fund, of New York City, in 1929 completed its five-year demonstration in child health in Rutherford County, Tennessee, and then retired from actual participation in school-health work. Since that time, the program for health in this county has been based upon the substantial foundation laid by this organization, and has followed, in the main, the lines indicated by the demonstration.

Developing a Sound Technique

During this period there has been a conscious and sustained effort by those in authority, and by officials of the public schools, to apply the principles thus developed, and to use those policies and procedures that have been found to serve most effectively the interests of the children of the county. In this effort a sound technique has been developed, and marked success has attended these labors. A close-up view of how this comprehensive program was applied and is now carried out, it is believed, will prove in a measure helpful to a fuller understanding of the values of a health program, when administered with definite scientific objectives ahead and with a well-tested procedure to follow. To give such a close-up view is the purpose of this article.

Those planning organized health activities in Rutherford County, Tennessee, schools at the beginning had to take into account what had already been attempted in the name of health, the somewhat meager facilities in many of the buildings, the irregular opening and closing dates of the schools, the road conditions, the quality and training of the teaching staff, and the awakening of the people to a greater interest in, and responsibility for, the development of a health program. All of these factors were noted and given attention in their turn. In working the problem through, first consideration was given to the discovery of an approach to the main problem which has for its general objective education in health and the promotion in particular of the health of every school child.

Four avenues of approach in time have been fairly well defined. They lead to the teachers, to parents and patrons, to pupils in the various grades, to interested citizens, and to the State Teachers' College where courses in health are given. It is worthy of note that these avenues have been kept open through all the years of this health program and that they have been found consistently to reach with slight modification the means by which the objectives have been realized.

Believing that the teachers hold the key to much of the success of a health organization which of necessity must afford vital contacts with the school, the first move was to arouse in them an interest which would be quickening and permanent. Consequently a six weeks' course in "Health for Rural Schools and Communities" was offered during the summer term of the local State Teachers' College for those who expected to teach in the county during the coming year. This was followed by a two-hour health course on Saturday mornings, for nine weeks in the fall, taught by representatives of the health department. If teachers, or any other group for that matter, are to assume leadership, they must know what it is all about. These courses were, therefore, informative as well as inspirational.

[1]Superintendent of Schools, Murfreesboro, Tennessee.

The execution of the effective health-education program described in the paper was preceded by a complete health survey and child-health demonstration. The pioneer efforts of Mr. Mitchell were described in the September issue of the JOURNAL (pages 21–23).

Co-operation of County Forces

The regular meeting of the county teaching force also has given an ideal opportunity for the director of health, or someone appointed by him, to take up with small groups the health problems of their grades, and to present at the general sessions the larger aspects of health through lectures, demonstrations, and exhibits, supplemented by reports of outstanding pieces of work that had been undertaken and accomplished during the month just closed.

For the purpose of interesting and informing the teachers as well as to secure valuable data for the use of the department a survey of the county school buildings, grounds, and equipment was undertaken. This was a co-operative effort in which the teachers participated. At the regular monthly meetings the project was thoroughly discussed and a form for the survey developed with the assistance of the teachers. Although rather comprehensive, it was easily understood and could be applied without great difficulty. This form was distributed to every school, filled out by the faculties under the direction of the principal where there were two or more teachers in the school, and returned in due time to the health department. Information gathered at first hand in this way served as a starting point for teachers, and at the same time gave to the school and community an immediate objective in sanitation. The program was further extended a few weeks later and soon progress all along the front was being made.

Visits of Director to Classrooms

The third approach to teachers and their definite commitment to the health program was through the visits of the director or his representative to the classrooms where advice and council were given upon specific problems that arise in connection with teaching the subject. It has been observed that this has a distinct tendency to unify the health program of the individual school with that of the whole county, and to keep it moving toward predetermined ends. The weaving of health activities into school routine under this expert direction gives a basis for an understanding between doctors, nurses, and teachers and affords the means for the application of methods and objectives so that a broad and comprehensive development may result under the director's guidance.

The parent is now drawn into the picture. It has been found that the approach to the pupil is made easier as parents become better informed and more interested in health education in schools. This is helped along wonderfully well by their participation in parent-teacher associations with health programs, in mother's clubs, and in the work of health committees in conjunction with the department. However, engaging the interest of the school child in health cannot always wait on results to mature in these and similar organizations. His activities must spring from sources closer at hand. These are developed largely through the practice of health habits, the daily morning inspection under the practiced eye of the classroom instructor, physical education, and textbook instruction.

Examination of Children

In this school-health program which has achieved nation-wide recognition the way toward real accomplishment, it is felt, is really cleared when the examination of the school child is held. This usually occurs at the school building in the presence of parents when possible to get them there. They will not always come but the examination goes on without them.

During the year when special examinations are necessary to check on teeth, tonsils, or vision, for instance, it is nothing unusual to see busloads of pupils, chaperoned by their teachers, at the Health Unit for this purpose. Numbers of them come many miles from the more remote sections of the county. It is indeed an interesting and inspiring sight to observe scores of these happy youngsters from town and countryside on most any day during the session as they await their turn to appear before the examining group.

Whether this examination is held at the school building or at the Health Unit, the various factors in the child's health status are discussed in simple nontechnical language with the child and the parent or teacher in a frank, tactful manner. "This discussion," states Dr. Harry Mustard, first director of the demonstration, "so far as possible, avoids both negative and positive extremes. The one seems poor psychology, the other poor technique. No gloomy pictures are drawn as to the dire effects of diseased tonsils or carious teeth, nor are any promises made as to glowing health, limitless energy, and brilliant mentality if this or that is done. Instead, a middle ground of common sense is sought for, and an effort is always made to fit the method of presenting information and advice to the age of the child or the intelligence of the parent."

Among other points brought out in this conference is the fact that this examination is but a means to an end and that the facilities are readily available for a full utilization of every opportunity which this opens up. A co-operative spirit is always shown by the examiner, and sufficient time is taken at the end of each examination to make all needful explanations in a kindly professional yet personal relationship before the next in line is called.

Here is the real starting point for the pupil. All that has gone before is preparatory. Rules of hygiene, health habits, correction of defects are an outgrowth in the future of what an expert has told him about himself and are henceforth a part of his personal problems. Supplementing these is instruction in health which as a part of his classroom assignment he has had for several years and which he will continue to receive as long as he is a pupil in grammar school.

Practice of Health Habits

A change in the motivation of the pupil's work in health is now sought. As a part of his regular school program he is led to practice such habits as it is believed will make him strong and healthy and happy. It is impossible to measure with any degree of accuracy the strength of this factor in stimulating a child to desire robust health. It does, however, appear "to keep fresh the whole subject of health and to prevent it becoming abstract and impersonal."

At the end of the examination a chart is hung on the wall of the classroom. On this is listed the entire roll of the room. Red stars indicate the various items of physical condition

in which each student is normal. Blank spaces show the items in which each pupil because of defects cannot now qualify. The use of this chart is very helpful as a means of stimulating corrections. It is found, however, that the mere presence of the chart on the wall holds no magic to develop health interest and enthusiasm. It is but an instrument in the hands of the teacher to accomplish an end, and presents a daily picture of individual growth and development which has seldom failed to arouse and maintain the zeal and ambition of pupils. With his accomplishments clearly before him and with a teacher giving all needful assistance in helping him fill up the gaps, the pupil at the beginning of the year undertakes an evaluation of his own needs, and thus moves toward the goal set up for him by the department. "So far as known no child has been unduly discouraged because of the task ahead of him."

The School the Center of Community Interest

The teacher and pupils are not left alone to work out the problem. The school is made the focus of community interest and action by the nurse. For several years this interest was aroused mainly by visits of the nurse to the homes of the school children. These visits including follow-up cases averaged about 2,000 annually in the county. From experience it has been found that the rural nurse can get better results by working with community health committees rather than with the individual homes. Correction of defects has been effectively stimulated now over a considerable period of time through group meetings of parents and teachers operating in practically every case as organized committees of parent-teacher associations, local health committees, or informal groups of interested parents and their local teachers. The nurse meets with such gatherings shortly after the examination of pupils.

With the wall chart already referred to available for immediate use, the needs are quickly visualized when the nurse appears on the scene and only a minimum of explanation is needed as to measures to be undertaken. It is always kept clear in the minds of the group that the meeting is not held to help the nurse in her work. "On the other hand, she makes it plain that she is meeting with the community organization to help it handle a community responsibility. To keep prominent this relationship is most important for without it some in time will arrive at the conclusion the nurse is trying to get them to do work for which she is employed and paid out of taxes they pay."

Meeting Follow-up Problems

When this local health committee meets for the consideration of problems that follow the examination, the procedure is usually as follows:

The children's names are divided into groups according to defects. One will contain those who have dental defects, another tonsil, and a third those who need toxoid or toxin-antitoxin treatment. Further classification is made containing those who require medical care other than inoculations, those who are considered able to pay for treatment required and operations, those who can pay part, and those who are known to be unable to pay anything.

Then every parent is requested to have his children visit his family physician or dentist for diagnosis and recommendation as to the type of treatment needed. All do not at once send their children to the doctor. Some even refuse. But as a rule in a few days the committee has all the children on its list it can well handle, cleared by the local practitioners, with needed treatment indicated in each case. Some require dental work, others the removal of tonsils, while others need to see an oculist. The list is too long to be given here. To the first group available others are added as the work gains momentum.

Under the guidance of the nurse and the teacher the committee action is usually prompt. "Arrangements are made with the local hospital for those not able to pay, by the committee and not by the nurse. Should this responsibility be taken by the nurse, local initiative would be weakened. Parents able to pay make their own arrangements with the physician of their choice. This same plan is followed by those who are able to pay even a fraction of the charge. At no time, except in the case of those unable to pay anything, does the committee handle the arrangements. This is done to increase personal initiative for the sake of community education and as a safeguard against pauperization. So far as is known, be it said to the credit of the medical profession, no child in school who has needed treatment has gone without same during this decade in Rutherford County on account of the financial condition of the family."

The same procedure, in the main, is followed in handling those needing dental care. As the demands here are so great, many committees find it necessary to raise funds to meet these expenses by giving entertainments in the local schools and by using other means in vogue in the local committees. It is apparent that it is the policy of the health department to use every available community resource in handling this problem as it does with others and by so doing to develop local consciousness and responsibility. Thus special demands are made on subcommittees to furnish transportation without cost to pupils to and from the health centers, and to draw from their number those who will give the necessary assistance to the nurses when examinations are given.

Keeping Health Objectives Before the Parents

It is needful to bear in mind that throughout the year certain health objectives must be kept before the parents as well as the children, and these objectives must be stated in such terms as can be understood by all. The setting up of these objectives and their acceptance has done more than any one factor to translate into measurable and comparable units not only the efforts of the parents as already described, but those of the pupil, the teacher, and the school as a whole.

Those in authority are duty bound to see that these are kept in the forefront of the thinking of all concerned. The handicaps of the child are to be removed if possible and all the forces available are used with this end in view. Particularly active are the teachers in this. It is a part of their obligation to their student body and to their community. They follow up these defects until corrections are made. In a majority of the schools they make long series of telephone calls and visits in the homes, and hold individual and group conferences with parents. This is done in an effort to correct the defects of pupils, to build up their health habits, and to secure immunization against certain diseases.

In securing these corrections or the modification of health behavior of pupils, reliance is placed on no single factor. The health program in the schools is co-operative. The routine efforts of doctors, teachers, and nurses are strengthened at every point so far as possible by the spur of competition, the careful integration of community resources, and the contagion of enthusiasm kindled as the program progresses each year. While the work is well organized, it is in no sense mechanized. The program is kept rooted in the interests of those it serves. Herein lies one of the reasons for its success.

School health here is accepted as a definite part of the teachers' responsibility. It is incorporated in the curriculum, and is given a major place in the schools' activities. It is not thought of in terms of textbook instruction with so many recitations per week accompanied by reports, themes, and graphs collected by the pupils. It is a part of the life of the pupils and is developed from that angle. An account of how this is handled in one of the largest schools of the county is typical of others and illustrates the plan in general use.

Presenting the Yearly Health Program

Soon after the organization of the fall term, the health program was brought by the principal before the teachers of the school in the usual Monday afternoon faculty meeting. He outlined the general objectives, the results accomplished during the previous year in health, and the particular goals to be reached during the present year. For the benefit of any new teachers who had been brought into the faculty he went over in some detail the plans and the technique to be used. He impressed the fact that the whole program centers around the child, that health instruction is a failure if it does not result in the correction of physical defects in the pupils, the immunization against diphtheria, smallpox, and typhoid fever, the improvement in the practice of health habits, and the development in the pupils of a better attitude toward citizenship participation.

As the term advanced it was made clear that the teaching of health is no academic problem alone. It involved co-operation of the teacher with the health department and provided a laboratory course in every room where results are tested regularly. The principal provided for direct instruction in physiology and hygiene in the upper grades and indirect instruction through correlation with other subjects. Definite devices were developed in faculty meeting. These served as working guides. The objectives were analyzed from time to time as the underlying principles of the health program were applied.

A chairman of the health program was appointed from the faculty. It is her duty to have immediate charge of its development throughout the year. Her position was an important one and she was chosen because of her interest in health, her conception of the outcome of the work, and her marked executive ability. Under her direction, the entire plan took shape. The text in hygiene was taught three days each week in grades five and six. The teachers of the first four grades used their own outlines, and drew upon available publications for supplementary material. A system of records was kept which showed at a glance the progress of the instruction in health in each classroom and in the school as a whole. They were regularly presented and checked once each week at the faculty meeting. The record was then compared with that of the previous week, the previous month, the same periods last year, and friendly criticism offered, together with plans for improvement where needed.

"The Blue Ribbon Plan"

Near the first of the school year, each pupil in grades three to eight was furnished with a daily health-record form, to be used for one month to start him on the road which leads to a better consideration of personal health. The teachers of grades one and two, under the guidance of the director of health, worked out their own plans for building up an understanding and response to correct habit formation.

The morning inspection had its place in the daily schedule of practically all the rooms. The teacher not only checked for cleanliness and neatness but followed a definite procedure for detecting signs of communicable diseases. This procedure was prepared by the health department and furnished the schools in mimeograph form. When it appeared the pupils needed an examination or the care of physican or nurse, the health department was immediately notified,

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Elements of *Supervisory Techniques* Feasible in a Small School System

W. F. Himmelreich[1]

The supervisor of a small school system is especially subjected to the possibility of confusion. To try to check each supervisory activity and procedure in detail would get the supervisor so involved in a mass of details that it would detract from, rather than add to, his efficiency. Furthermore, data-gathering devices, activity analysis, and standard indices of good teaching are as yet not sufficiently objective; nor are they of sufficient validity to insure good supervision.[2] Superintendents will do well to confine themselves to those supervisory procedures that cover the general principles of teacher observation and guidance, and simplify them to meet their own particular situations.

The discussion which follows, relative to the selection and programming of the major and auxiliary techniques and the procedure for evaluating of results, will not be in detail. The analysis is, in general, leaving it to the superintendent's or principal's good judgment and initiative to apply them to their own conditions. A superintendent will have to learn to select from writings intended for the detailed work of specialists those principles that he can apply and to look for his major help and inspiration from books, workbooks, and magazine articles written by those who had the busy superintendents of smaller school systems in mind.

1. Classroom Visitation

In various studies dealing with the importance of supervisory techniques, classroom visitation is rated as one of the most important functions. This is true when rated from the standpoint of importance and time devoted to it. Hampton[3] made a study of the work of 130 public-school principals and found that the average principal reporting spent three fourths of his time supervising the observation of teaching and preparing for observation.

To make classroom supervision effective and of most assistance to the teachers, the supervisor should take into consideration three important factors: preparation for observation; careful observation of the teaching; and analyzing the teaching observed. Kyte,[4] in discussing the supervisory observation of teaching, says: "First, the supervisor plans for the projected visit, so that he is thoroughly prepared to make an impersonal, critical observation of teaching. Second, he observes carefully and records faithfully the phase of teaching selected for observation. Finally, he analyzes it critically with the purpose of aiding the teacher in meeting her discovered needs."

The basis for preparation for observation and analysis of a visitation should be a simple, easily checked list, such as the following form from Lane's,[5] *A Workbook for Principals and Supervisors.*

Check List for Observation of Teaching

Brief Check List for Observation	*Yes*	*No*
a) Were the physical needs of the children cared for?		
b) Was the teacher a good manager?		
c) Was discipline formal or socialized?		
d) Were the children industrious, happy, and in earnest?		
e) Did the situation provide for life and growth?		
f) Did the lesson have a clearly defined aim?		
g) Did the subject matter fit the aim?		
h) Did pupils know what was expected of them?		
i) Was the lesson type suited to the aim and materials?		
j) Did pupils assist in planning, organizing, and judging values?		
k) Did the teacher observe the laws of learning?		
l) Did pupils and teacher reach the goal set with satisfaction?		

The question as to the kind of visits to make — whether they should be announced or unannounced, on schedule or call, long or short — is still a matter of controversy. They all have their strong and their weak points. However, practice indicates that the long, unannounced visit is perhaps to be preferred. The important thing is to keep in mind that it is essential to visit the teachers at their work in order to be of service to them; and to the professionally minded superintendent and teacher it is not such an important matter as to how the call is made.

2. Conferences

Conferences are of the individual or group type. The group type is similar to the group meetings as given under teachers' meetings.

In the study made of the smaller secondary schools by the National Survey of Secondary Education,[6] the personal conference was given first rating in both frequency of use and in point of emphasis.

The principals of the smaller secondary schools are responsible for the supervision of grades 1 to 12, and their conditions are comparable to small school systems as a whole. Their estimate of the worth of the personal conference is applicable to this study. The personal conference is related to classroom visitation in that it is most frequently an outgrowth of the class visit. Occasionally, it is a previsitation function. In preparing for the personal conference a supervisor should make a critical analysis of the teaching observed. He should determine upon three or four points for emphasis. The improvable good points of the teacher's classroom procedure should receive attention, as well as the weak points. It is well to lead the teacher to discuss his work in order that the points intended for emphasis come as a natural observation of the work in question. A superintendent should not hesitate to give praise to the teacher when he has noteworthy accomplishments. His efforts to further service are stimulated and the rough places of his profession become smoother.

Other than the previsitation conference and the one growing out of the classroom visitation, there is the personal conference which is an outgrowth of the group teachers' meeting. Individual difficulties will arise from group studies of such problems as diagnosing pupil difficulties, unit assignment development, testing programs, problems of method, etc. Teachers may desire help in these particular phases of the problems that apply to their particular pupils or subjects. In these cases the personal conference is the most effective. The ideal situation is to create an interest on the part of teachers in their own improvement so that the conferences arise out of a desire on the part of the teachers to solicit the help of the superintendent in the problems that confront them.

Teachers' conferences should come as soon as possible after the teaching is observed. While most conferences are held by appointment, there is a strong recommendation on the part of authorities that supervisors should, if at all possible, arrange a definite hour for conferences. This arrangement would give teachers an assurance that there is time available for conferences and that if they should call for a conference there would not be the feeling that perhaps they are intruding upon the superintendent's time.

3. Teachers' Meetings

Well-planned teachers' meetings are an important technique of supervision. General teachers' meetings should be conducted only as the occasion for general administrative matters arises. A general meeting is usually held at the beginning of the school year. During the year such meetings should be as infrequent as possible and should be subject to call.

Group meetings devoted to specific problems of teachers of certain grades or of certain subjects are very good and should be emphasized.

Superintendents should plan to interest their teachers in certain definite problems, such as the objectives of the supervisory program, unit assignments, individual differences, supervised study, etc., and should base group meetings on these problems. Preparation for these meetings should be the same as for other teaching and learning activities. Definite assignments should be made with sufficient references to cover the field from all its important angles. Opportunity should be given for all teachers to take part in these discussions, and all teachers should feel that they are deriving benefit from the meetings.

Group teachers' meetings should be scheduled for definite days. If the problems are sufficiently important and an interest is created in them, group meetings can be held as often as once a week.

4. Auxiliary Techniques

After taking various studies into consideration, it seems that professional reading, attendance at summer sessions, membership in professional association[7] and the development of the daily and unit plans are the most frequently stressed aiding techniques which superintendents emphasize as additional means to promote teachers' growth in service.

Professional Reading. Rather than to make professional reading a mere routine requirement, it is better to create an interest in important school problems so that the reading of professional books and magazines becomes objective. Teachers should be encouraged to subscribe for several magazines which are particularly helpful in their department or grade. In addition, a magazine shelf and a library of professional books should be accessible to every teacher. The magazines and books may be kept in some particular room or in the superintendent's office if space is not available in the regular library. This material may be augmented by encouraging teachers to add their own maga-

[1]Superintendent of Schools, Guernsey, Wyoming.

[2]Barr, A. S., *An Introduction to the Scientific Study of Classroom Supervision*, Chapter V (New York: D. Appleton and Company, 1931).

[3]Department of Elementary-School Principals of the National Education Association. Seventh Year. (April, 1928). Pp. 183–4.

[4]Almack, John C., et al., *Modern School Administration, Its Problems and Progress* (Boston: Houghton Mifflin Company, 1933).

[5]Lane, Robert Hill, *A Workbook for Principals and Supervisors*, p. 66. With permission of The Macmillan Company (New York, 1931).

[6]*National Survey of Secondary Education*, Bulletin No. 17, Monograph No. 6. (1932), "The Smaller Secondary Schools," pp. 141–5.

[7]*Ibid.*, p. 146.

zines and books to the collection for the school year.

Summer Sessions. Extra college credit may be earned by correspondence, through extension classes, or by attending summer sessions.

Attendance at summer sessions is to be preferred to either of the other two means. The teachers' regular duties are so numerous that too much extra work is likely to cause either the one or the other to be neglected. Teachers should be encouraged to attend summer sessions frequently. A frequent short period is preferable to longer terms at infrequent intervals.

Social and economic conditions are changing rapidly, bringing about corresponding rapid changes in school administration and organization as well as modifications in teaching practice. These conditions require constant, rather than spasmodic, study.

Membership in Professional Associations. Membership in teachers' associations is one of the best means of keeping professionally alive. Associations are local, state, and national in character. Membership fees are nominal, and teachers owe it to themselves and to the profession to become active members. Where actual attendance is impossible, as is the case in respect to most meetings of the National Education Association, the educational bulletin is in itself worth the membership fee. At the same time, the activities which are of mutual benefit to all in the profession are supported through membership.

Daily and Unit Planning. If school and class objectives are to be attained, it is necessary that a superintendent and his teachers are daily striving toward them. This is impossible unless the work is outlined.

Superintendents require daily plans more than they do unit outlining. This is probably due to the fact that long-time unit assignments are a development of more recent years. Daily plans are important, but it seems that it is best to stress unit planning and to consider daily planning as the detailed work of the unit. Teachers should be allowed sufficient freedom in their daily planning so that they may be able to conduct their classwork in accordance with the more progressive teaching methods.

5. Procedure for the Evaluation of Supervision

Superintendents use the criteria of changes in pupils and changes in the teacher or his teaching in order to evaluate supervision. The change in pupils is determined as measured by standard tests and the observed improvements in pupils' attitudes, while the change in the teacher or his teaching is determined by the teacher's attitude toward supervision, observed changes in the teacher's methods, and time devoted to self-improvement.

The chief criticism is that all of the procedures except the use of standard tests are subjective.

Summary

1. A superintendent, in order that he may serve efficiently as a supervisor, prepares a definite program of supervision.

2. A superintendent makes a survey of his school and community as his first step toward developing an intelligent basis for supervision.

3. After a survey is complete, a superintendent prepares an outline of the objectives to be attained and the techniques to be used in the attainment of the goals set.

4. He selects the major and auxiliary techniques applicable to his needs and adapts them to his program.

5. The present study selects the following elements of supervisory procedure and recommends them as a guide for building a supervisory program for a small school system.

Outline of a Supervisory Program for a Small School System

I. Supervisory planning.
  A. A survey of the school and the community.
  B. An outline of objectives and techniques.
II. Major supervisory techniques.
  A. Classroom visitation.
    1. Preparation for observation.
    2. Observation of teaching.
    3. Critical analysis of the teaching observed.
  B. Conferences.
    1. Personal conferences.
      a) Outgrowth of classroom visitation.
      b) Outgrowth of group conferences.
    2. Group conferences.
      a) Conferences with teachers of certain grades or with teachers of certain subjects.

(Approximately two thirds to three fourths of a superintendent's supervisory time should be devoted to the classroom visitation and conference techniques.)

  C. Teachers' meetings.
    1. General teachers' meetings.
      a) Infrequent and subject to call.
      b) Devoted to administrative affairs.
    2. Group meetings.
      a) On regular schedule and as frequent as once a week.
      b) Devoted to special teaching problems.
        (1) Planned for as one would for any other teaching and learning activity.

(Approximately one fourth to one third of a superintendent's supervisory time should be devoted to this technique.)

  D. Auxiliary techniques.
    1. Professional reading.
      a) Professional reading should be made objective.
      b) A library of professional books and a magazine shelf should be provided.
    2. Attendance at summer sessions.
      a) Short periods of attendance at frequent intervals are to be preferred to longer periods of attendance at infrequent intervals.
    3. Active membership in professional associations.
    4. Long-time unit assignment planning.
      a) Daily planning should be detailed planning of the unit.
  E. Criteria for the evaluation of supervision.
    1. Criteria of change in pupils.
    2. Change in the teacher or his teaching.

President Stoddard Declares *St. Louis Ideal City* for Superintendents' Convention

After more than twenty years, the Department of Superintendence is to meet again at St. Louis. After the officers and executive committee had canvassed the facilities in more than half a dozen cities, St. Louis was chosen to entertain the Department's Sixty-sixth Annual Convention — February 22–27, 1936. Few cities can provide the facilities required for the Winter Meeting; St. Louis has them.

Veteran schoolmen will find little to remind them of the St. Louis which they visited when the Department last met there in 1912. That meeting, over which Charles E. Chadsey presided, was housed in a single hotel. Tumbledown structures greeted the eye on every side. Now the slums around the station have disappeared and six blocks in the downtown section near by have been cleared of the old buildings which stood for a half century or more, thus making way for the new Memorial Plaza. Prominent on this plaza is the new Municipal Auditorium, where the convention meetings and exhibits are to be located. This building, with its beautiful Grecian columns, is the outstanding edifice to greet the eye of the visitor crossing the Memorial Plaza. Its main arena will seat 12,000 people; the opera house with 3,500 seats is the last word in beauty and convenience. In addition, there are over twenty other assembly rooms seating from fifty to three hundred persons.

For school executives and members of boards of education the exhibit hall under the same roof has unusual interest. Here more than 100,000 square feet of space are available for the great display of school materials which is always a feature of the meetings of the Department of Superintendence. School furniture, scientific apparatus, projection equipment, school supplies, maps, and books of all kinds are among the items which may be seen.

For many years the conventions of the Department of Superintendence have offered an opportunity for educators from all parts of the country to bring together their problems and, through discussion and exchange of ideas, to find a solution for these problems. Participation in these conventions and contact with other educational leaders mean real professional growth. A strong program is in prospect. From the opening vesper service on Sunday afternoon, until the closing session Thursday afternoon, there will be something of interest for everyone interested in education.

For the Tuesday morning session a feature of unusual interest has already been planned. It will be a panel discussion on the social-studies curriculum. For over two years a distinguished commission has been preparing the yearbook on this theme to be presented at the St. Louis convention. All members of the yearbook commission will participate in the Tuesday morning panel discussion, which will touch upon many controversial issues raised at commission meetings and with which teachers of these subjects are continuously confronted. The members of the commission are Charles B. Glenn, chairman, superintendent of schools, Birmingham, Alabama; Charles A. Beard, author and historian, New Milford, Connecticut; Herbert B. Bruner, Teachers College, Columbia University, New York, New York; Leslie A. Butler, superintendent of schools, Grand Rapids, Michigan; George S. Counts, Teachers College, Columbia University, New York, New York; Frank N. Freeman, University of Chicago, Chicago, Illinois; Leonard V. Koos, University of Chicago, Chicago, Illinois; Paul T. Rankin, director of Instruction, public schools, Detroit, Michigan; Vergil Stinebaugh, director of curriculum, public schools, Indianapolis, Indiana; Ralph W. Tyler, Ohio State University, Columbus, Ohio; and Howard E. Wilson, Harvard University, Cambridge, Massachusetts.

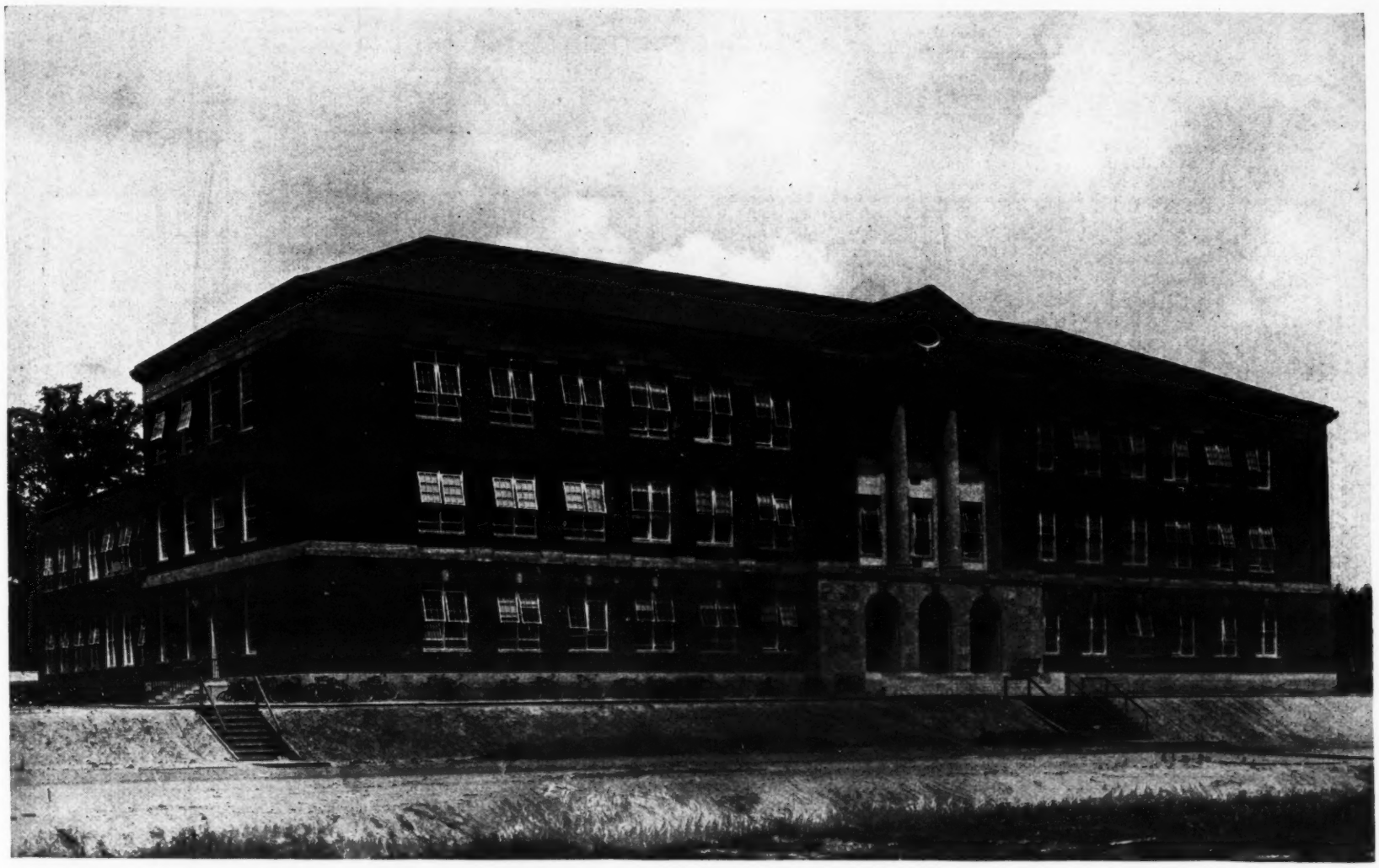
Advance reservations are now being made for hotel accommodations during the period of the convention. All reports from the Housing Bureau indicate a large attendance. Applications for sleeping room reservations should be sent to Philip J. Hickey, chairman, Housing Bureau, 911 Locust Street, St. Louis, Missouri.

CARRYING ADVERTISING TO THE CLASSROOM

A board of education located in a city of the State of Kansas was recently offered something like from 50,000 to 60,000 book covers for free use by the children in the elementary and high schools. The book covers were to contain a few "educational and good will" lines, to advertise a new "better sight" lamp designed to relieve eyestrain among school children. The proposition was promptly tabled.

Here it was not a question of a covering for schoolbooks. Their practicability and economy have been established. No school system ought to be without them. It was merely the question of the advisability of carrying advertising matter into the classrooms. The attempts to exploit the schools, or rather to use them to further the sale of any given article or commodity, have in the past been made with frequency and under most adroit conditions.

The average board of education is absolutely clear on the subject. To open the doors for the promotion of business enterprises would lead to endless annoyance and confusion. It would seem that the business world was fully convinced by this time that the schoolhouse is not the place for its advertising and promotional sales efforts.



GENERAL EXTERIOR VIEW, TAFT JUNIOR HIGH SCHOOL, WASHINGTON, D. C.
Nathan C. Wyeth, Municipal Architect, Washington, D. C.

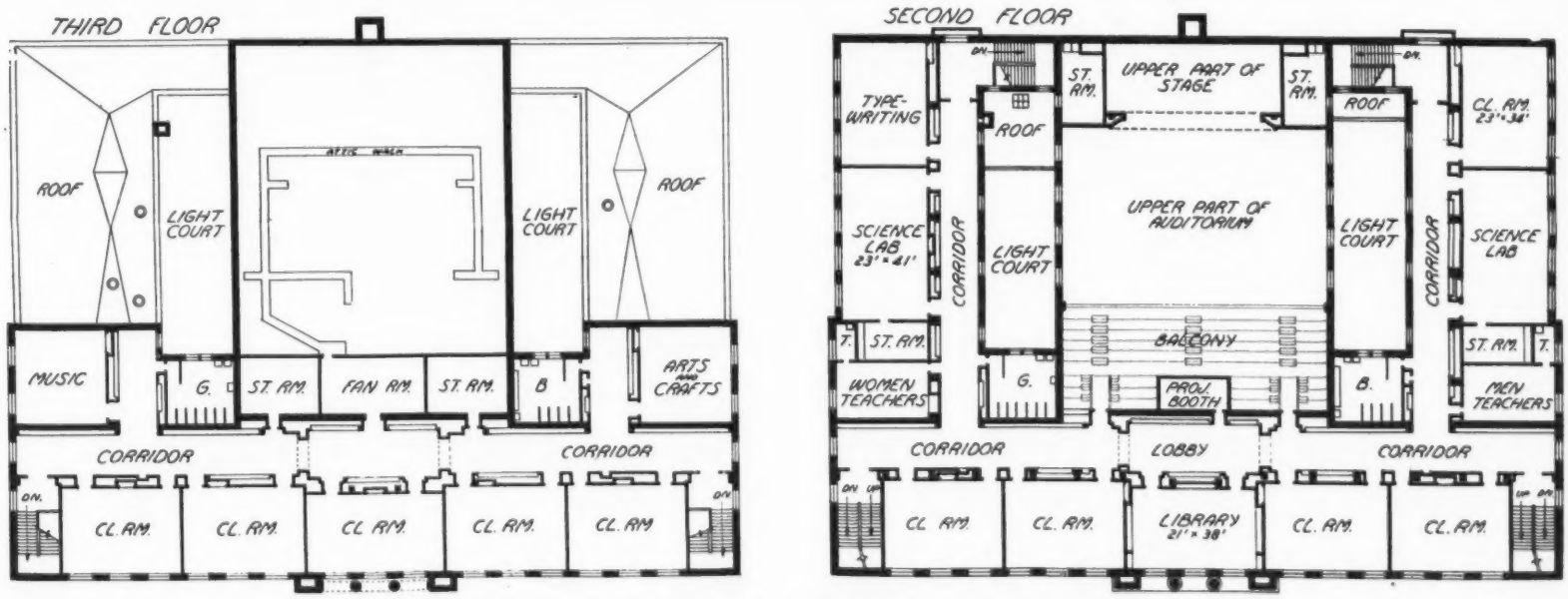
The Taft Junior High School

Washington, D. C.

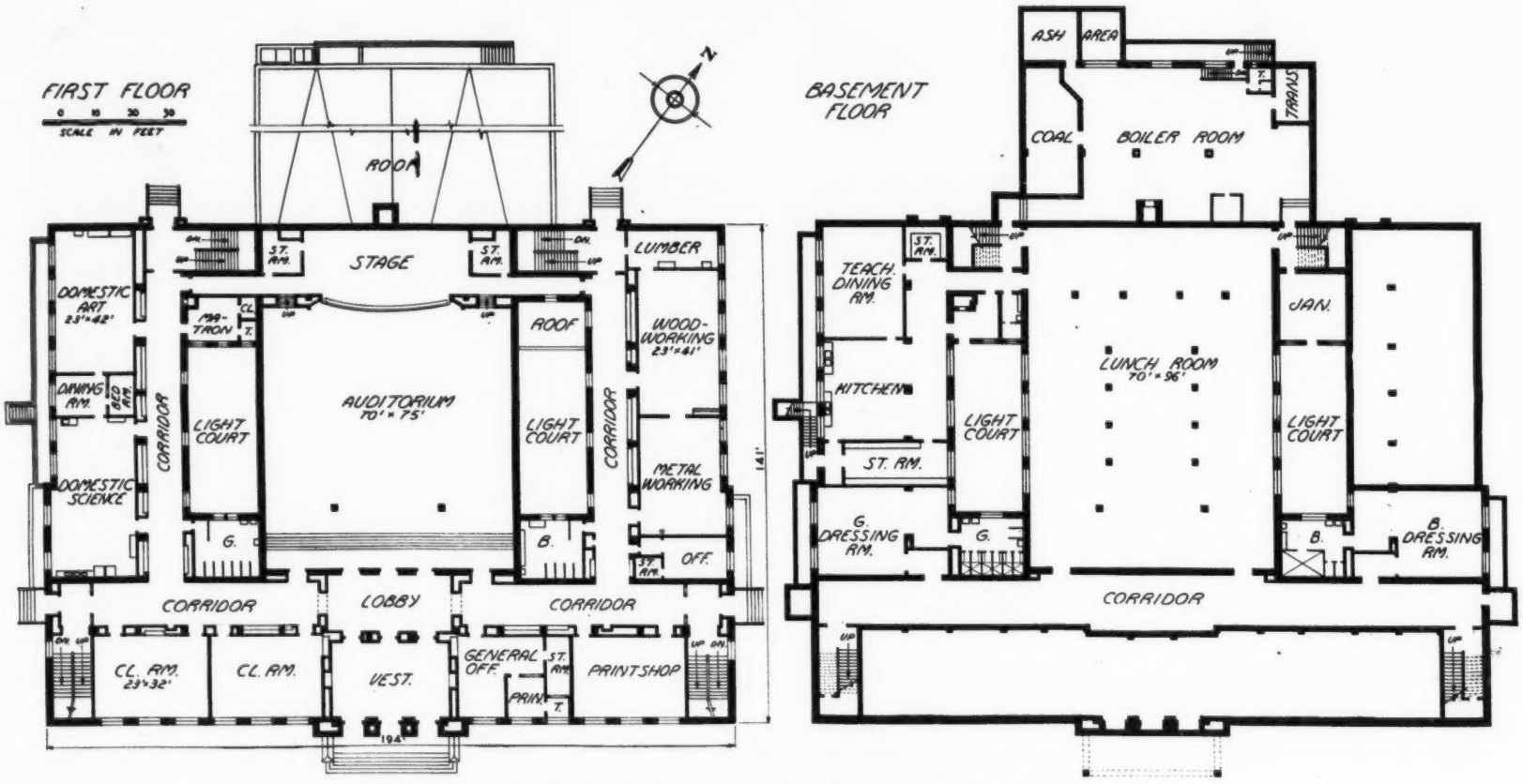
In its wide-flung PWA activities for promoting the planning and construction of school buildings throughout the United States, the Federal Government has not overlooked the city of Washington, where a continuous program of school replacement and of new construction has been carried on during the past ten years. One result of this activity is the Taft Junior High School, which occupies a high piece of ground located on South Dakota Avenue, in the northeast section of the city. It is an integral part of the reorganization program which is providing all children in the District opportunity to attend a junior high school during three years, as a part of the secondary-school system.

The official architecture of the city of Washington roughly divides itself into two types. The more important government buildings are white in color, constructed of marble or Indiana limestone, and monumental in character. The secondary buildings, like schools, partake more of the spirit and form of regional architecture. They are Colonial in design, and constructed of red brick, with gray limestone trim.

The Taft Junior High School is severely plain, except for the classic central feature, and depends for its architectural effect upon the high quality of the materials, the balance of the parts, and pleasing roof lines. The exterior trim is limestone, the roof gray slate, the windows white-painted pine, and the metalwork copper.



THIRD AND SECOND FLOOR PLANS, TAFT JUNIOR HIGH SCHOOL, WASHINGTON, D. C.
Nathan C. Wyeth, Municipal Architect, Washington, D. C.



FIRST AND BASEMENT FLOOR PLANS, TAFT JUNIOR HIGH SCHOOL, WASHINGTON, D. C.
Nathan C. Wyeth, Municipal Architect, Washington, D. C.

The building has been planned in the shape of a huge square, facing southeast, with all instructional rooms having sunlight during a considerable portion of the day.

The basement contains only the recreation and lunchroom, measuring 70 by 96 feet, and a kitchen, a teachers' dining room, boys' and girls' dressing and shower rooms, and the heating apparatus. The last mentioned is located entirely outside the main walls and includes two steel boilers of the low-pressure type.

The first floor is entered through a central vestibule, leading into the main hall, and through four pupils' entrances, which give direct access to the stairways. There are on this floor, two standard classrooms, a printshop, a domestic-science suite, and a series of shops. The general administrative offices are located adjoining the main lobby. The main feature of the first floor is the auditorium-gymnasium, which has been finished in Colonial style. It measures 75 by 75 feet, has a stage with complete equipment for school theatricals, a balcony, and a projection booth.

The second floor includes five standard classrooms, two science laboratories, a room for commercial subjects, a central library, retiring rooms for men and women teachers, and various storerooms.

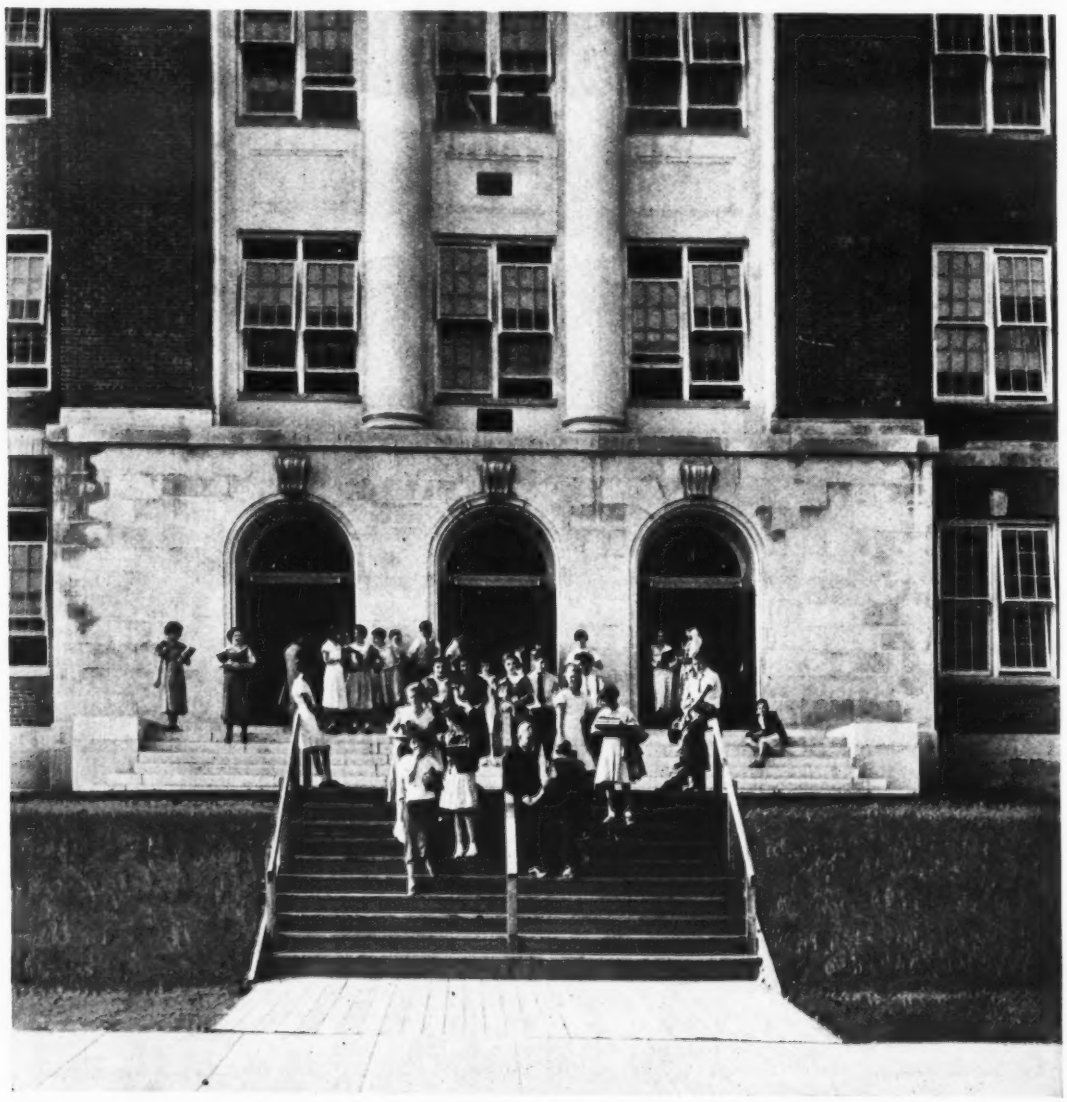
On the third floor there are five classrooms, a room for music arts, and an arts-and-crafts shop. On this floor, as on the second floor, there are boys' and girls' toilets.

The building throughout is constructed according to the high standards which the Government has set up for all its public buildings. The walls are of brick masonry, the floors and roofs cement, and the long spans above the auditorium are carried on steel girders. The corridors and vestibules have terrazzo floors, and the toilets and locker rooms, showers, etc., have tile floors and tile wainscoting.

The auditorium has a hardwood floor and movable seating because it is used for gymnasium and physical-education purposes as well as for assemblies. The classrooms are plastered, have a minimum of hardwood trim, and hard maple floors.

The building was originally designed by the late A. L. Harris, architect of the District of Columbia, and was erected under the supervision of Mr. Nathan C. Wyeth, municipal architect.

The building cost a total of $450,000, without equipment.



DETAILS OF FRONT ENTRANCE, TAFT JUNIOR HIGH SCHOOL, WASHINGTON, D. C.
Nathan C. Wyeth, Municipal Architect, Washington, D. C.

FINISH FOR OUTDOOR STADIUM SEATS

After experiments with eight varnish oils, officials in charge of the stadium at Notre Dame selected Thermolyzed Tung Oil as the most satisfactory coating for the redwood seats. According to the Monthly Bulletin of the Illinois Society of Architects, the test showed that after a year's exposure, Thermolyzed Tung Oil was the only vehicle which remained in good shape under this extraordinary exposure. The seats had not been treated since the stadium's opening in 1929, at which time they had received only a coat of stain. The five years' exposure had dried them out badly and given warning of the rot that would follow unless some more permanent coating was applied.

School-Building *Cleaning* and *Sanitation*

Leonard A. Clark

(Concluded from October)

Care of Walls

Smooth-surfaced walls, finished with paint, are the most sanitary and easily cleaned. Walls finished with calcimine, or similar products, are porous and difficult to clean. The usual practice, where walls are finished with calcimine, is to dust them with a vacuum cleaner once a year, and to redecorate when the walls become unsightly. While this method has a low initial cost, in the end it is more expensive than painting and has the disadvantage of being insanitary and less attractive, after a few years. Paint, while more expensive to begin with, has a lower maintenance cost, and is both attractive and sanitary.

Walls finished with paint should have a thorough cleaning once each year. The best time is during the summer vacation. In addition to this, all walls that become soiled from contact with childrens' hands and clothing, especially along stairways and corridors and around the drinking fountains, should be cleaned as often as necessary to keep them bright and sanitary. Care should be taken not to use for this purpose too-powerful cleaners, as they will soon remove the paint. Naturally the walls that are washed the most will be the first to show wear. When this stage is reached, it is economy to add another coat of paint. This usually includes a strip, about five or six feet wide, along stairways and corridors. This part of the walls will usually require a new coat of paint every four or five years, depending somewhat on the number of children in the building, the quality of paint used, and the frequency of washing. In addition to washing, all walls and ceilings should be dusted at least three times a year, using the manufactured sanitary dusters to which has been attached a special handle that is long enough to reach the ceiling easily. Where central vacuum systems are installed this work is much simplified and can be done more effectively.

Windows and Other Glass. Few school buildings have excessive window space. This is especially true of old school buildings. As a matter of fact, the real value of sunlight in the schoolroom was not understood until comparatively recent times. We now know that a lack of sufficient light causes serious eyestrain, and that sunlight is the best germ destroyer obtainable. Hence, the importance of keeping windows clean and free from foreign substance that may absorb or reflect the sun's rays.

Perhaps it is unwise to prescribe any set rule for window cleaning, other than that they should be washed as often as necessary to keep them clean and free from stains of all kinds. However, most janitors like more or less definite rules in such matters, and a rather definite schedule for window cleaning is desirable. In the writer's schools the windows are washed on the outside three times during the school year; once just before the opening of school, again just after the worst dust storms are over and the fly season past, which is usually late in October or during the early part of November, and in the spring as soon as it is warm enough to do the work. The windows are washed on the inside four or five times each year, except that the lower panes of glass are washed as often as necessary to keep them free from finger prints, fly specks, and the like. Ordinarily twice a month is sufficient for this purpose. The glass in doors and in the doors of cupboards and bookcases should be washed weekly. Other glass, such as transoms, the glass in pictures, electric-light bulbs, globes, and the like, should be cleaned three or four times a year.

It has been our experience that the best results are obtained by using clean water, without a cleaner of any kind, and applied with a cloth and dried with a chamois skin or rubber squeegee. Some janitors use a little kerosene in the water, with good results. The use of rubber hose for washing windows on the outside is wasteful of water and usually leaves the windows in a streaked or spotted condition.

Toilets and Washrooms

A state inspector of schools once confided in me that he could learn more about the administration of a school system by an inspection of the toilets and locker rooms than in any other single way. Grimy floors and stained and dingy toilet fixtures speak of incompetence in the administration of the janitor-engineer service. Unsightly drawings and writing on the walls suggest that something is wrong with the citizenship training of the school. Just how much merit there is in this type of school inspection, I am not prepared to say. It has much in its favor. This much I am certain of that an environment like that described above cannot have a good moral influence upon the children who must visit these places. That it has a serious ill-effect upon their moral life is more than probable.

The following suggestions for keeping the toilets clean and wholesome have proved very satisfactory. The method used for cleaning the floors of toilets was discussed in an earlier section of this discussion and will not be repeated here.

Lavatories, toilet bowls, sinks, and urinals should receive a thorough cleaning, using a strong cleanser once each week. If rust stains appear on porcelain, muriatic acid may be used to advantage, and will restore the natural white color. In addition to this, all lavatories should be cleaned daily or oftener if necessary, using a mild cleanser. It is a good plan to go over the toilet bowls and urinals each morning with a bowl brush, using a cleaner if necessary. This practice will insure clean, wholesome fixtures in the toilets.

With proper ventilation and thorough cleaning, there will be no disagreeable odors in these rooms. The practice of using drip fluids or sweet-scented crystals or sprays has nothing to recommend it. These articles are used only to cover up an unsatisfactory condition. The standards of cleanliness should be such that they are not needed.

Locker and shower rooms are likely to be neglected by the janitor. They are out of the way and are seldom visited by strangers. However, the same standards of cleanliness should exist here as elsewhere. A thorough sweeping or daily flushing with the hose to remove the dirt brought in on football, track, or baseball shoes is very essential. These rooms should be well ventilated to remove the sweat odors arising from the uniforms in the lockers. Coaches must be required to see that all athletic uniforms are hung up in the lockers in order that they may dry out rapidly. Because of the seemingly unavoidable odors present in nearly all locker rooms, the use of pleasant-smelling deodorants in the form of crystals, blocks, or sprays may be advisable, although they cannot take the place of thorough ventilation.

Miscellaneous Cleaning Jobs

In addition to the major cleaning operations of the building there are numerous odd cleaning jobs to be performed.

Drinking Fountains. Drinking fountains must be cleaned daily, using strong cleaning powders. The cleaner may be applied dry and rubbed with a damp cloth, or a strong solution made of a soluble cleaner. Of the two methods the solution method is usually the more satisfactory. If the latter method is used, an odorless disinfectant should be added to the solution. If rust stains are present, muriatic acid may be used, care being taken not to drip it on the floors.

Metal Fixtures. In this category belong such items as door handles and knobs, panic bolts, door plates, hinges, water faucets, handles for raising windows, electric-switch plates, electric-light fixtures, radiators, radiator pipes, toilet and urinal pipes, and the like. Most of these items are made of brass, nickel, or steel and should be polished often enough to prevent tarnishing. Metal that has become tarnished is unsightly and very difficult to clean. No set rule can be given for the frequency of polishing since so many factors are involved. The metal in damp basement rooms and in chemical laboratories, for example, will require much more frequent polishing than elsewhere. As a general rule, three times yearly, except under conditions like those described above, will suffice. A good liquid metal polish is better than cleansing powders for this purpose. Since there are numerous metal polishes on the market, it is difficult to describe a procedure that will give the best results. As a general rule, the directions coming with the product may be followed to advantage.

Radiators and radiator pipes should be dusted weekly, using a radiator brush to get into the inaccessible places, and a dust cloth over all other parts.

Ink Stains. Whenever possible, ink must be wiped up at once, before it has had time to soak into the floor, and the spot washed with clean water. If the floor has become stained, it should be treated with oxalic acid. If the spot is not thoroughly removed by this treatment, it will be necessary to use a wood scraper. When the latter method has been resorted to, it will be necessary to refinish the floor over these spots, using the same product that was originally used on the floor.

Chewing Gum. The best practice for the removal of chewing gum from floors and desks is to scrape off the wads as soon as discovered. Many janitors carry a putty knife while sweeping, and remove gum as they proceed. This practice has much to commend it. The gum nuisance may be greatly reduced by a little co-operation on the part of the teachers and pupils. There is no necessity for the condition found in many a school building, where the janitor must spend hours each day in performing a task that could easily be avoided by a little thoughtfulness and co-operation. This holds true for other accumulations, such as bits of paper, pencil shavings, and the like.

Pencil and Chalk Marks. In spite of all that can be said and done, there will be some pencil and chalk marks about the walls and sidewalks. A strong soap solution, applied with a cloth or sponge, will usually remove the marks. These disfigurations must be removed daily, since their presence is not only unsightly, but becomes a strong suggestion to others to add their contribution.

Doormats and Rugs. In this category such equipment as carpets, curtains, and portieres are included. A vacuum cleaner, of either the central or portable type, is the most efficient equipment for this purpose. Where this equipment is not available, the problem of cleaning these articles becomes more complicated. Doormats, carpets, and rugs should be swept daily, using a corn broom, and taken out of doors for a thorough beating three or four times during the year. Curtains and portieres should be removed and taken outside the building for thorough shaking or beating, preferably at the

(Concluded on Page 80)

A Century's Progress *in* School Heating *and* Ventilation

Forest R. Noffsinger

(Continued from September)

Practice is slow to follow principles and standards. For 50 years the principle of jacketed stoves was accepted by leading authorities. But in an 1887 study of 3,860 Massachusetts schoolrooms heated by stoves, Pinkham[54] found that in only 42 cases were the stoves jacketed, and that in nine tenths of the rooms no other means of ventilation than doors and windows were provided. The sanitary survey of schoolhouses in Indiana in 1889[55] showed that, in practice, little progress had been made during a five-year period. In 1884, 70 per cent of the buildings were improperly ventilated; in 1889 with much more accurate data, 71 per cent were found to be improperly ventilated.

A unique plan for heating and ventilation was suggested by Dudley in 1888.[56] Dudley's plan provided for large and numerous inlets in the ceiling with outlets at the floor and also at the top of each desk to catch directly the exhalations of the pupil seated therein.

One of the most elaborate and careful treatises on school ventilation for the period between 1885 and 1890 was the Lomb prize essay on school hygiene written by Lincoln and published in the 1888 Indiana State Board of Health report.[57] Lincoln's views however varied but little from the views presented in this section as being accepted by other leading authorities.

Importance of Moisture in Air

Palliser, in 1889,[58] presented a number of diagrams showing the air current in rooms when the inlets and outlets were arranged in various locations, and he concluded that the best plan was to have the inlets placed on the inner wall 6 to 10 feet above the floor and the outlets on the same wall and near the floor. He claimed that "it is absurd to bring in quantities of fresh, warmed air at the floor level of the room and send it out double-quick at the ceiling level, without it having traversed the room outside of an almost direct line drawn from the incoming to the outgoing duct." Palliser, although recognizing the statements of Billings and others with respect to the moisture of air, said that "the quality of moisture in the air, though not considered by modern hygienists to enter materially as a problem of health consideration, is of importance as a matter of comfort."

A rather extensive investigation on the relative efficiency of various systems of heating and ventilation of 39 schoolrooms as to average temperature, humidity, and CO_2 content was reported by Reed in the 1891 report of the Pennsylvania State Board of Health.[59] Eleven different types of heating and ventilating systems in common practice were studied and tables with averages for each of the items investigated and for each of the types of heating arrangement. However, Reed did not present any conclusions in favor of one system or another. His single conclusion was that the experiment proved without a doubt that "CO_2 is an omnipresent factor, in practically the same relative proportions at all levels of a schoolroom whether ventilated at the top, sides, or the bottom, or all."

A new plan called "successive" ventilation was advocated by Woodbridge in 1891.[60] The description of the plan is given in the following quotation: "Separate supply and discharge ventilation might be furnished for the halls, the schoolrooms, the wardrobes, the playrooms and the water closets. By such a method of ventilation the air supply to the halls would for the most part escape unused, whereas if it were passed on to the schoolrooms, it could be made to serve the double purpose of hall and room ventilation. The air within a well-ventilated schoolroom is abundantly pure for the ventilation of a wardrobe. If suitable for breathing, it must be equally so for airing clothes. The schoolroom air may, for this purpose, be in part vented through the wardrobe so also in case of the playrooms — if the basement rooms are used for that purpose — they may in cold weather take their supply from the halls, and the water closets may in turn be supplied from the playrooms. The successive movements must always be, as described, from the better toward the worst — as from hall, through schoolroom via wardrobe to vent — or from hall through playroom via water closet to vent."

Marble, in *Sanitary Conditions for School Houses* published by the Bureau of Education in 1891,[61] added very little to the development of new principles of heating and ventilation. His work is of note more especially because of its wide distribution to educators throughout the country. Some of the principles he stated were at variance with the weight of opinion among authorities. He stated that a proper regulation of the moisture in the air was a matter of supreme importance and that the need for moisture was greater where hot-air systems were used than where steam or hot-water systems were installed. Marble also had less praise for the use of the fan than did Trowbridge and Thayer. Marble advocated downward ventilation. By this plan all the ventiducts led to the basement where a foul-air chamber was provided for the discharge of the foul air through one large central ventilating shaft, thus providing economical control in the basement rather than in the attic.

Downward Ventilation in Connecticut

The Connecticut school report for 1896[62] gave a rather complete treatment of the various practices in schoolhouse heating and ventilation. Three methods of heating by steam were described; they were direct radiation, indirect radiation, and direct-indirect radiation. The advantages and disadvantages of each were given with a preference for the indirect method. The Connecticut report introduced the use of the term "gravity" for "natural" ventilation and stated that the three influential factors operating in gravity ventilation were: diffusion of the air, the wind, and inequality of temperature. The report also was opposed to downward ventilation.

The Connecticut school report of 1898 contained an elaboration by Woodbridge[63] of his plan for "successive" ventilation and the precautions to be taken in ventilating special rooms. Woodbridge was an advocate of downward ventilating and claimed that during the time when the building was not occupied great economy could be secured by reheating and recirculating the air of the building to maintain the proper temperature. "Warming by rotation," as he called it, "should, of course, cease and ventilation should begin before a building is occupied." Woodbridge recognized the value of filtering air especially in dusty or smoky localities, but he considered the practice uneconomical and impracticable.

The principles of heating and ventilation share with those of site selection and seating a comparatively early development and a literature that is both profuse and conflicting. Some of the principles and standards proposed by Mann in 1837, by Potter and Emerson in 1842, by the Boston school committee in 1846, by Leach in 1853, and by Barnard in 1854, lived through the scientific and competitive struggles of half a century and even today find numerous followers. The theory that carbonic-acid gas was in itself responsible for the evil effects of the lack of ventilation led to demands for copious fresh-air supply, high ceilings, heated flues, fans, and a large number of experimental devices. The theory was exploded by Hubbard in 1886 and was followed by the theory that the evil effects of lack of ventilation were due to organic excreta carried in the air, a theory involving practically the same ventilating requirements as the theory formerly held. Billings, four years earlier, had disclaimed any evil effects from the lack of moisture in the air, while Palliser, in 1889, came close to guessing the modern theory of ventilation by indicating the importance of bodily comfort secured through the proper moisture content.

The most recent theory requires bodily comfort, disclaims evil effects from chemical and organic content of air, and advocates air conditioning to secure the physical properties thought necessary to remove heat stagnation, objectionable odors, and bodily discomfort. Such a theory removes the necessity for the introduction of vast quantities of fresh air and admits of recirculation. It however, requires air conditioning and constant air movement. It has developed a new crop of devices some accepted by one group, others adopted by another, all more or less experimental and creating seemingly endless controversy and confusion, the requisites of progress.

(To be continued in January, 1936)

[54]Pinkham, J. G., "The Ventilation of Schoolrooms Heated by Stoves," *Nineteenth Annual Report of the State Board of Health of Massachusetts, 1887*, pp. 313–61. Wright and Potter, Boston, 1888.

[55]State of Indiana, "School Houses," *Eighth Annual Report of the State Board of Health of Indiana for the Fiscal Year Ending October 31, 1889*, pp. 78–103. William Burford, Indianapolis, 1890.

[56]Dudley, Pemberton, "Suggestions Concerning the Ventilation of School and Assembly Rooms," *Fourth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania, 1888*, pp. 326–30. Edwin K. Meyers, Harrisburg, 1889.

[57]Lincoln, D. F., "School Hygiene," *Seventh Annual Report of the State Board of Health of Indiana for the Fiscal Year Ending October 31, 1888*, pp. 215–22. William B. Burford, Indianapolis, 1889.

[58]Palliser, Palliser and Co., *Common Sense School Architecture*, pp. 55, 58. J. S. Ogilvie, New York, 1889.

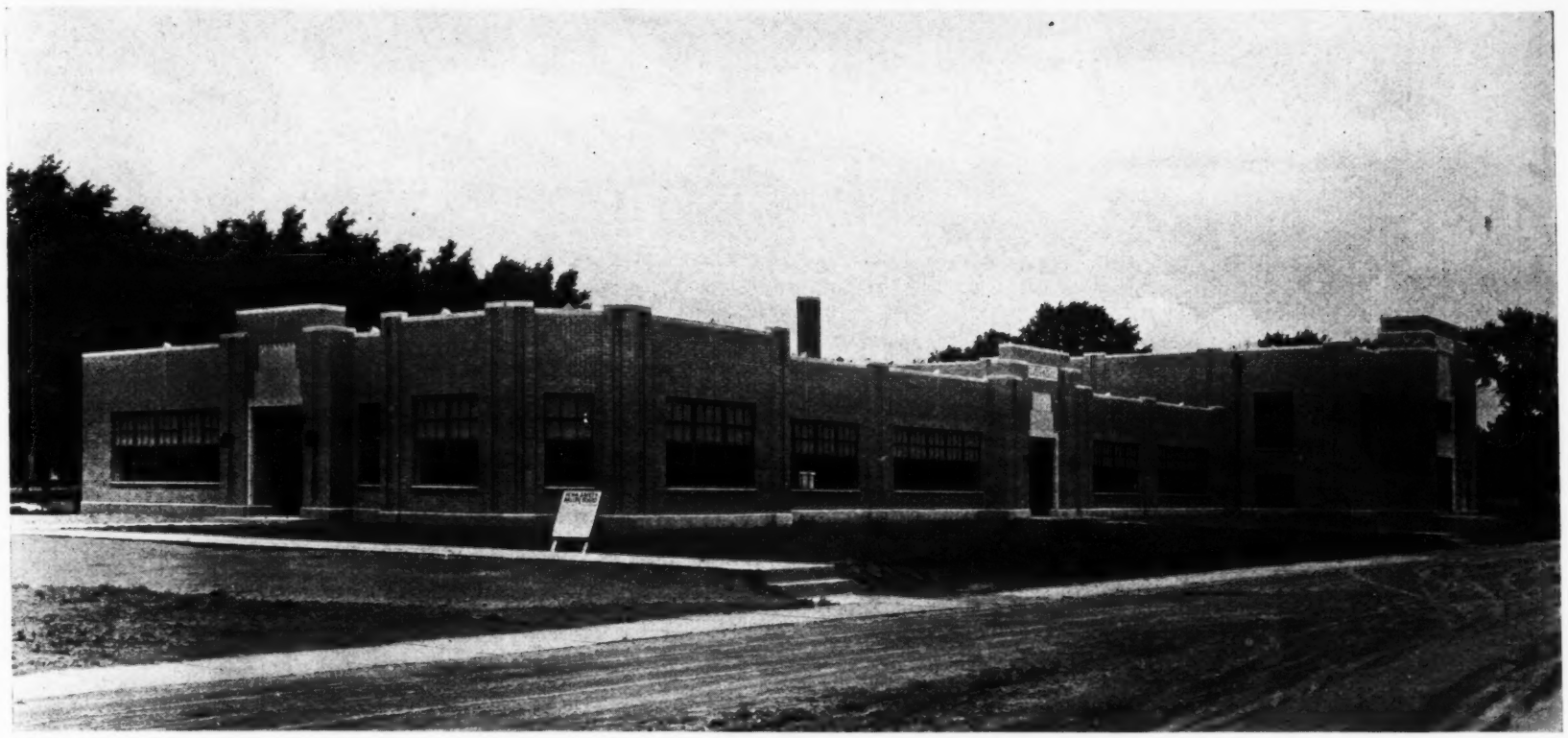
[59]Reed, R. Harvey, "Original Investigation on the Heating and Ventilation of School Buildings," *Seventh Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania, 1891*, pp. 430–46. Edwin K. Meyers, Harrisburg, 1892.

[60]Woodbridge, S. H., "Plans for Heating and Ventilating School Houses," *Seventh Annual Report of the State Board of Health of the State of Maine, 1891*, pp. 315–51. Burleigh and Flynt, Augusta, 1892.

[61]Marble, Albert P., *op. cit.*, pp. 23–95.

[62]State of Connecticut, "School Buildings and Ventilation," *Report of the Board of Education of the State of Connecticut, 1896*, pp. 212–32. The Case, Lockwood and Brainard Co., Hartford, 1896.

[63]Woodbridge, S. H., "Schoolhouse Warming and Ventilation," *Report of the Board of Education of the State of Connecticut*, pp. 337–63. The Case, Lockwood and Brainard Co., Hartford, 1898.



GENERAL EXTERIOR VIEW, GRADE-SCHOOL BUILDING, HARPER, KANSAS
S. S. Voigt, Architect, Wichita, Kansas.

A *Community* Grade-School Building

Tangible evidence of the growing appreciation of the school plant as an effective instrument for modern education is to be found in the increasing number of genuinely effective school buildings erected in small communities of the South and West during the past two years. Invariably these new structures reflect on the part of schoolmen a keen understanding of the relation of room areas and general layout to school organization and teaching method and on the part of the architects an acceptance of the educator's recommendations for the arrangement of the buildings and for the plan and equipment of the individual rooms.

The new Harper Grade School at Harper, Kansas, is such a modern building, reflecting a keen desire to make the building *per se* aid instruction, preserve the health of the children, and make the teaching and learning processes happy. It has been planned and constructed entirely to meet a generous instructional program for children in the first six grades and to afford the adult community an opportunity for physical education and civic and social gatherings.

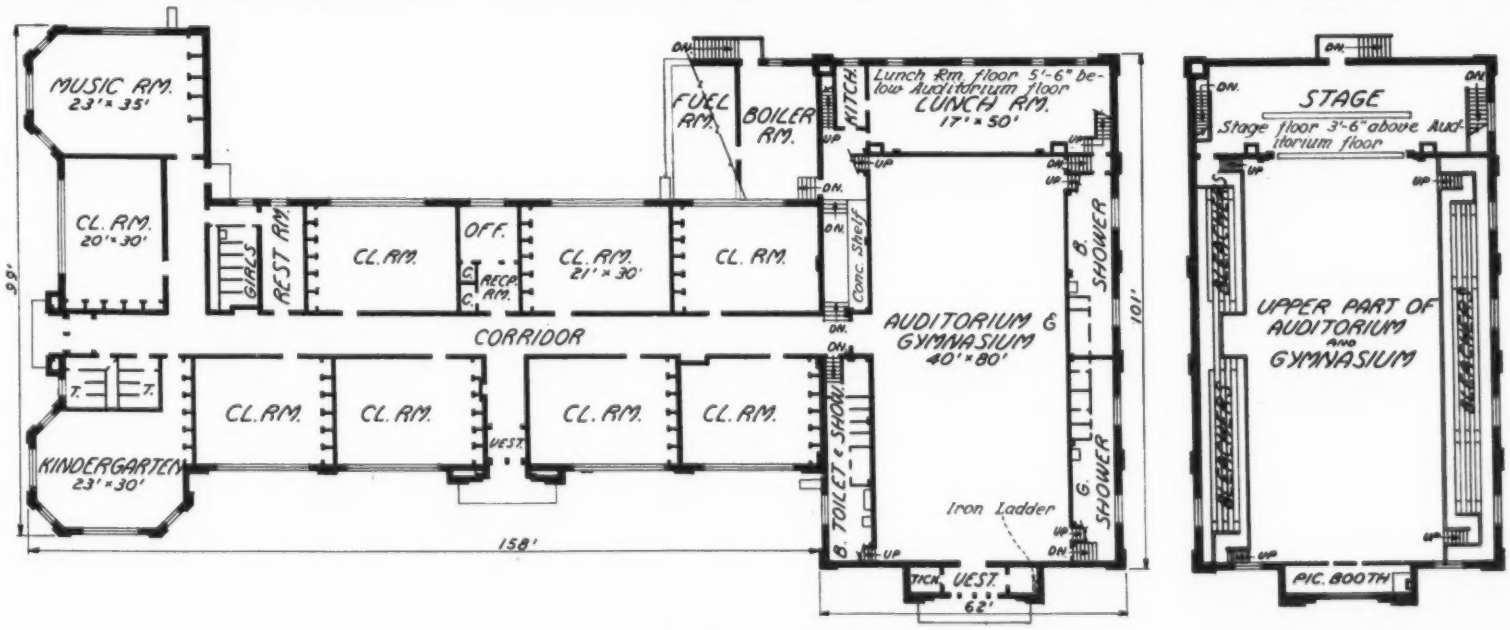
The building was planned in the spring of 1934 and construction was begun in August of that year. The building was completed in 140 working days and was occupied February 1, 1935. It occupies a site with a frontage of 450 feet and a total depth of 150 feet. It is so located that the large unbroken play area is to the rear and to one side of the building. The structure measures 220 feet on the main front and is 101 feet in depth.

The academic section of the building includes eight standard classrooms, a music room, and a kindergarten. The last-mentioned room has been placed adjoining an entrance and is equipped with a toilet which also serves the primary class.

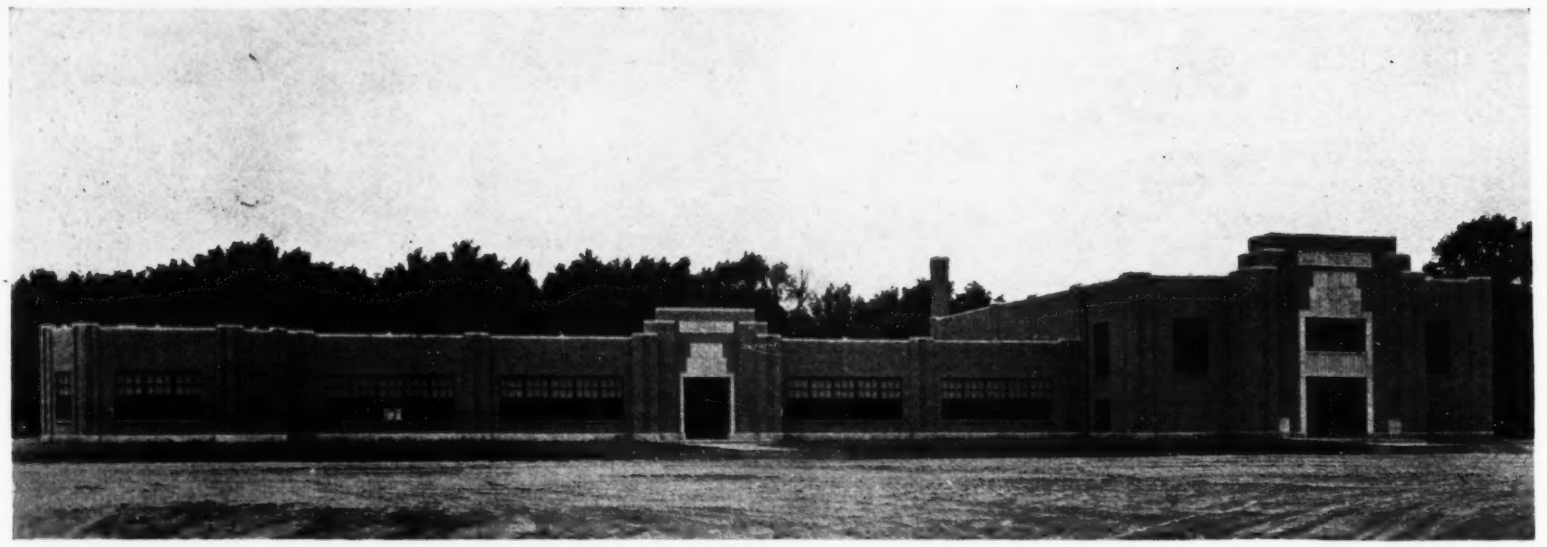
The auditorium-gymnasium at the right end of the building measures 40 by 80 feet and has a stage measuring roughly 17 by 50 feet. The room has separate entrances and can be operated without opening or heating the balance of the building. The space under the stage has been used for a lunchroom, and the area under the raised bleachers is occupied by boys' and girls' showers and a boys' toilet room.

The building has been designed in a modified, modernistic style. The walls are of brick and tile and the exterior trim is a local stone. The long spans over the auditorium are carried on steel trusses and the roofs in the academic section are supported by steel rafters. The bearing floors throughout the building are of concrete and the interior walls are tile. In the corridors and in the auditorium the finish walls are faced with tile; in the classrooms the walls and ceilings are plastered. The corridor and auditorium ceilings are of a fireproof, sound-absorbing material. Classroom and auditorium floors are of asphalt tile and the corridor and toilet floors are of terrazzo.

The building is heated with vaccum steam and the classrooms are fitted with unit ventilators. The boiler is a gas-heated, steel tubular boiler. The electrical equipment includes com-

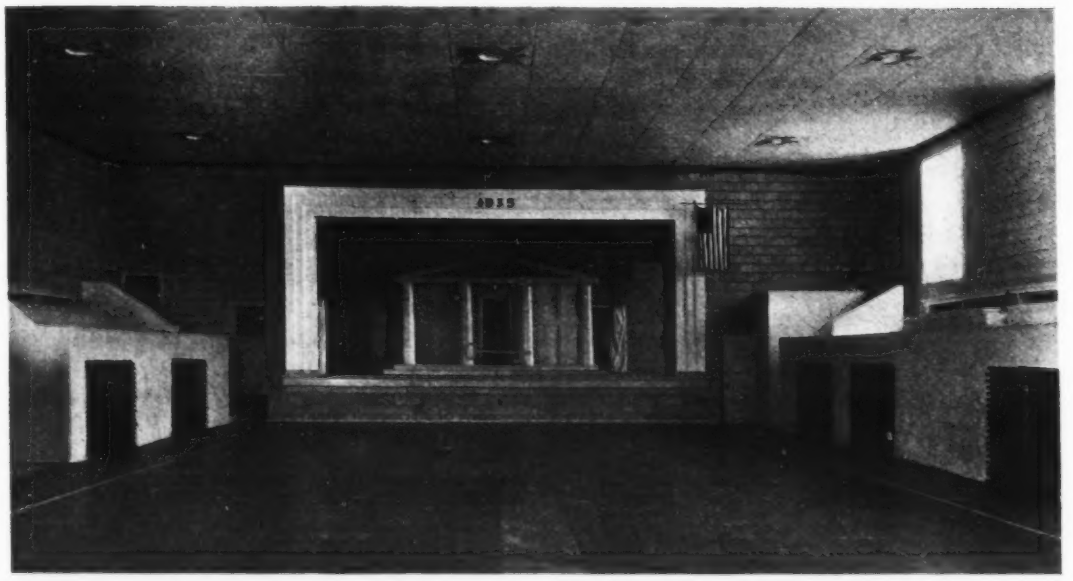


FLOOR PLAN, GRADE-SCHOOL BUILDING, HARPER, KANSAS
S. S. Voigt, Architect, Wichita, Kansas.



FRONT VIEW, GRADE-SCHOOL BUILDING, HARPER, KANSAS
S. S. Voigt, Architect, Wichita, Kansas.

A TYPICAL CLASSROOM, GRADE-SCHOOL BUILDING, HARPER, KANSAS



AUDITORIUM-GYMNASIUM, GRADE-SCHOOL BUILDING, HARPER, KANSAS

plete direct-lighting fixtures, automatic bell and clock signals, and radio loud-speakers. The plumbing includes heavy-duty fixtures of standard school design. The showers are fitted with nonscalding mixing valves.

The classrooms have built-in wood wardrobes, natural slate blackboards, and cork bulletin boards.

The building contains 300 pupil stations in the academic rooms. The cost of the construction was $43,702, and of the equipment $4,590, or a total of $48,292.

The educational planning was done by Mr. E. T. Tebow, superintendent of the Harper schools, and the construction was supervised by Mr. S. S. Voigt, architect, Wichita, Kansas.

THE ECONOMY OF UNIT HEATING AND VENTILATION

A practical demonstration of the economic value of the unit ventilating system as compared with the old type of furnace system, has been made in the Central Grade School at Centralia, Illinois. Mr. Chester J. Scanlan, mechanical engineer, and Mr. R. V. Jordan, superintendent of schools at Centralia, reported in a recent issue of *Heating and Ventilating and Air Conditioning* the discontinuance of a central blast system and the substitution therefore of a unit steam-heating and ventilating plant.

"The old heating plant, with five warm-air cast-iron furnaces, was of the central blast type. Air was drawn in through the ducts on each side of the entrance door. From the blower, belt-driven by a 7½-h.p. motor, the air was forced through a tunnel beneath the basement corridor floor under the furnaces and then up through ducts to the various rooms.

"The first-grade room was unsatisfactorily heated and was unoccupied from the first cold days in fall until spring. On windy days the rooms on the windward side of the building were cold, while those on the lee side would overheat. In addition, the system was dirty, as soot and smudge were distributed.

TABLE I. Average Cost Per School Day

Year	*Type of System*	*Cost Per School Day*
1931–32....	Furnace System	$4.52
1932–33....	Furnace System	$4.15
1933–34....	Changed to steam system in mid-year	
1934–35....	Unit Steam System	$1.33

"The new system designed for this building is unique in that the steam supplied to the unit ventilators is controlled by a thermostat (one in each unit ventilator) located in the entering air stream. The convection heaters installed to heat the rooms are controlled by means of direct control valves. The unit ventilators introduce 300 c.f.m. of fresh outdoor air per classroom at all times. From the ventilating standpoint this has been found satisfactory in operation.

"Controls are so arranged that when the outdoor temperature is 60 deg. the entering air temperature is 60 deg., and as the outdoor temperature becomes lower the air temperature increases to a maximum of 100 deg. at an outdoor temperature of plus 10 deg.

"Operating expenses for several years past were as shown in Table II.

TABLE II. Operating Expenses

Year	*Degree Days*	*Coal Per Season, Tons*	*Coal, Lb. Per Degree-Day*	*Electric Power*	*Current Light*
1931–32	4508	106.9	47.50	$198.01	$154.99
1932–33	4987	125.2	51.30	$124.61	$149.18
1933–34	Furnace system changed to a unit steam system				
1934–35	5798	58.12	20.00	None	$120.28

"The total ventilating load with the old furnaces was (for 0 deg. to 70 deg.) 817,000 B.t.u. per hour. The heating load for convection heating was 401,400 B.t.u. per hour, making a total load of 1,218,400 B.t.u. per hour.

"With the unit ventilators the ventilating load was 204,000 B.t.u. per hour, which made the total load 605,411 B.t.u. per hour. At first glance this seems to be the explanation for the reduction in fuel consumption, but referring to the table the difference in coal per degree-day is to be noted. Based on 12,000 B.t.u. per lb. coal and an over-all efficiency of 60 per cent, the 1931–32 heating season calculates 112 tons. On the same basis the 1932–33 heating season fuel requirements were calculated at 123 tons.

"Based on coal at $4 per ton, Table I is interesting, as it shows the average cost per school day."

Stoker Firing of School Boilers

H. A. Frommelt[1]

Combustion engineers universally recognize that the burning of lower-priced sizes of coal under the proper conditions for complete combustion provides the cheapest possible form of heat. When these conditions are fulfilled, heating costs for schools, can be reduced from 15 to 50 per cent.

Automatic coal burners have made it possible to realize these savings, by providing the proper conditions for completely burning low-cost fuels, and through the addition of automatic features have contributed greater comfort, convenience, and improved operation. The outstanding benefits to be enjoyed through stoker operation may be summarized as follows:

1. Reduction in total heating costs up to 50 per cent are effected, the savings quickly paying for the stoker installation.
2. The more complete combustion of fuel eliminates smoke, overcoming a costly annoyance and complying with antismoke laws.
3. Automatic operating features provide uniform temperatures and a degree of health-guarding comfort not possible with hand firing.
4. Better operating conditions are the result, giving longer life to the heating equipment and permitting the development of full-rated boiler capacity.

To secure complete combustion of low-priced fuel in an automatic burner, the underfeed system of supplying the coal to the fire is employed. This thoroughly tested method employs a motor and screw-type conveyor to feed coal to the fire as needed to suit any load demand. Fuel is withdrawn from the hopper and fed upward into a retort in the fire box. The thrust of the screw and the shape of the retort walls combine to distribute the coal in a uniform layer over the entire fire bed. Air, in proper proportion for combustion, is supplied under slight pressure by a fan and is admitted to the fire bed through tuyeres or openings in the retort.

Volatile gases with high heat content begin to distill off from the coal as it is forced up into the heated zone above the retort. As these pass through the fire bed, they are heated and mixed with air and completely consumed in the combustion space above the fire bed. A hot flame is produced, giving to the boiler the heat content of these gases, which with hand-firing pass through the boiler unconsumed and are discharged from the stack as smoke.

Some Disadvantages of Oil

Oil, too, can be automatically fed to a fire, but coal seems to enjoy a number of advantages over oil:

1. Coal cannot explode or leak, and is therefore safer than oil which has a record of damages done by oil-burner fires.
2. Buckwheat size of coal is generally lower in cost than oil.
3. Coal stokers provide a steady fire and keep the boiler hot continuously — a situation which is not possible with start-and-stop oil burners.
4. Coal when used in a stoker is clean and smokeless and there is no possible stoker trouble which will result in spreading greasy soot all over a neighborhood, as is done when oil burners go out of order.
5. Coal sends no odors into the house such as occur when an oil burner gets out of order.
6. Coal flame is steady, giving an even temperature. There is no intensive torch-like flame as is necessary in an oil burner.

Perhaps the chief advantage of automatic coal burners is in the drastic reductions of the heating costs they affect, providing the cheapest possible form of heat. The lower operating costs quickly pay for the installation of the stoker. Through their use it is possible to burn lower-priced sizes of coal, such as free burning screenings, which are plentiful and have a high heat content. By extracting all of the heat and burning coal only when heat is needed, usually fewer tons of the cheaper fuel are required than where a boiler is hand-fired with the customary fuels.

Economic Advantages of Coal

Due to the correct combustion principles employed, fire-box temperatures will average considerably higher than with the same boiler hand-fired using the same quantity of fuel. This enables the boiler to be operated more efficiently and at its full capacity without forcing, and converts more of the total heat in the fuel than by any other method.

With the automatic controls and burning coal only as and when it is needed, a uniform steam pressure or water temperature is maintained which delivers heat to all parts of the system at all times. Lower steam pressures or lower water temperatures are generally the result, giving adequate heating without burning much fuel.

Following is a comparative cost record for coal, gas, and oil. One ton of buckwheat coal in a stoker costs, with electricity, about $9.50, usually less. This equals 180 gallons of fuel oil in an oil burner costing with electricity (at 10 cents per gal.), $19.50. This also equals 46,000 cubic feet of gas, costing (at 80 cents per thousand feet) $36.80. The saving effected by stoker firing is obvious. But let us go on a little further. The same amount of heat that can be obtained with a stoker for $9.50, will cost $13.50 if fired with coal by hand. Eliminating the other forms of fuel, it is obvious that a saving of $4 a ton can be effected in this case by the use of a stoker.

Essentials of Stokers

The following description of the essential parts with which the typical stoker should be provided may be helpful to the administrator:

Hopper. A large-capacity hopper made of heavy-gauge copper-bearing sheet steel is furnished with each stoker. The hopper feeds coal into the conveyor housing. An agitator, operated by the motor, prevents the arching of the coal in the hopper, insuring a steady flow.

Gear Box. The motor drives a worm-gear speed reducer which transmits power to the conveyor screw. The gear box has four gears, two worms and two worm wheels, which run continually in a bath of oil. Rawhide gaskets are used on all shafts which extend out of the gear box to prevent any oil leakage. The high-speed, intermittent, and low-speed shafts are mounted on precision ball bearings. The gear box has one speed. On the left-hand side of the gear box is a lever which disconnects the drive shaft from the feed screw, allowing the fan to run without feeding coal. This is used in starting a fire or on any occasion when it is necessary to run the fan without feeding coal.

The Fan. A quiet-running ball-bearing fan of the centrifugal type supplies the forced draft and insures the movement of all gases through the fire. Air enters at the center of the fan, and a shutter controls the volume. A special air duct made of heavy-gauge rustproof steel connects the discharge of the fan and the tuyere blocks. The positive action of the fan insures ample air for combustion at all times.

Hopper Gas Eliminator. Some stokers are provided with a hopper gas eliminator, which runs from the worm housing up into the furnace or flue. This makes it unnecessary to have a lid on the hopper, and by having the hopper open, it makes it much easier and handier to fill with coal.

The Motor. The horsepower of the motors used on stokers vary. An average is 1/3 h.p., a.c., 60 cycles, 110 or 220 volts, single phase. This motor is best of the repulsion-induction type and does not create radio interference.

Feed or Conveyor. A substantial cast-iron housing completely encloses a heavy alloy steel feed screw or conveyor. The outer end of the housing connects to the hopper base and the other end terminates in the ash pit. On some models the flight in the hopper base has a smaller pitch than those in the worm housing, which makes it possible to turn the screw with less power than would be required if all of the flights were of the same pitch.

Wind Box. The wind box or chamber of some stokers is cast integral with the retort. This simplifies installation and prevents air leaks. No brickwork is necessary to confine the air.

Boiler Front. A boiler front goes with every stoker fitted with an ash door and dump grate handle and lock. An auxiliary gate is located in the side of the wind-box which should be opened 15 or 20 minutes before the grates are dumped. This auxiliary air burns off the coke which is on the dump grates.

Operation of Controls. The intermittent control includes a relay, transformer, overload cut-out to protect the motor, a synchronous clock which operates a kindler once every hour, and a terminal block. It operates as follows: When the thermostat calls for heat, the stoker turns on immediately, and when the room comes up to the temperature at which the thermostat is set to turn off, the stoker is stopped. Once every hour the stoker is turned on regardless of the thermostat. The stoker stays on just long enough to keep the fire from going out.

Protection. A safety shear pin protects the entire mechanism from injury by any foreign matter which cannot be handled by the conveyor and which is accidentally fed in with the coal. A clean-out plate affords easy removal of the obstruction and obviates any necessity for removing coal from the hopper.

Some Stoker Questions

By this time the reader may have a number of questions in mind, aside from the purely technical, about the stoker and its application. The following is typical of the questions a layman may ask about a stoker, and the answers to these questions.

What does the stoker do?

It renders four useful services: (1) eliminates manual labor; (2) saves money; (3) adds to comfort; (4) improves health and well-being.

How does the stoker eliminate work?

By taking care automatically of all the disagreeable work and drudgery that goes with the tending of a furnace fire. Ash shoveling, grate shaking, digging of clinkers, setting of dampers, and sifting ashes are all eliminated.

How does a stoker add to comfort?

By keeping the building comfortable in all weather. By supplying the building with automatic heat, even and uniform, overheating with its subsequent dangers to health are done away with.

Does a stoker or any automatic heating device improve a ramshackle or overloaded boiler?

No. Where there are complaints that insufficient heat is obtained with hand firing, insufficient heat will be obtained with a stoker,

[1]Professor, College of Engineering, Marquette University, Milwaukee, Wis.

unless the fault was that the fire was not tended properly.

How much coal does a stoker burn?

About the same tonnage as in hand firing. If the coal was wasted in hand firing, the stoker will save coal. If the building never got sufficient heat, the stoker may use a little more.

What kind of coal is used?

Some stokers use anthracite, some bituminous coal. In either case the buckwheat size is used.

How much money is saved on coal?

From $5 to $9 per ton.

How are coal and ashes moved?

A screw similar to the one found in a meat chopper moves coal and ashes. Some models are equipped with an ash elevator which is of the chain and bucket type.

What automatic controls are on a stoker?

A thermostat controlling the temperature of the building; a high limit control acting as a safety device; a low limit control which prevents the fire from going out; and relay starting and stopping the motor.

What will happen if a large stone or a piece of metal gets into the conveyor screw?

Nothing breaks. An automatic clutch releases the motor. The obstruction is easily removed by means of convenient hand holes, the clutch is set, and the stoker is ready to continue. If desired, an electric buzzer may be attached to indicate such a condition.

Stokers Largely Automatic

How is the coal conveyor installed?

Some stokers are equipped with an automatic coal conveyor. The cheapest way to install such a conveyor is to put it into the coal bin without making any changes. It will leave some coal in the corners, but this is usually a splendid reserve in case deliveries should fail. The best way to alter the coal bin is to dig out the floor of the bin into a conical shape, throwing the earth up and around the hole until the entire floor slopes up at about 45° to one point. A five-inch iron or tile pipe is run to this low point in line with the feeder, and then the sides of the hole are covered with about an inch of concrete. The feeder is installed in the five-inch pipe.

What care does a stoker require?

Practically none. With automatic feeder and ash cans, it is not necessary to go near it for a considerable length of time. Some models, on the other hand, require daily attention. The stoker should be oiled as directed. Even the smallest require oiling once a month.

Is a stoker noisy?

No, it is very quiet, one can hear the ashes trickling into the ash cans, but upstairs it is impossible to hear whether the stoker runs or is idle.

Is a stoker dusty?

No, it is very clean. All air for the fire is taken from the hopper, therefore putting it under a slight vacuum action. Also the ash system is entirely inclosed, and it is not necessary to dig out, shovel, or shake down the ashes. This makes it possible to convert most of the basement into recreational rooms and the like.

How do you start a fire?

Remove the old ashes from the burner, wrap up some charcoal in a paper, place it in the burner, and light with a match. Then start the machine.

Does the fire go out in mild weather?

No, in mild weather the thermostat is not calling for heat. Under this condition the low limit control causes the stoker to run for a few minutes at frequent intervals delivering just enough coal and air to keep the fire alive and ready to come on strong when the building requires heat again.

How does a stoker save money?

By reducing the coal bill. It uses a small size of coal which sells for much less money than large sizes.

These are just some of the questions that arise in the mind of the prospective purchaser of a stoker. There are of course many more, but these seem to be the predominating ones.

Stoker firing is by far superior to hand firing. Only a fraction of the attention required with hand firing is called for in operating a stoker. This effects considerable saving in labor costs, or labor can be released for other duties.

The *Professional Project* for Teachers

L. C. Day[1]

Some years ago a prominent educator, speaking at a gathering of teachers, made one of the week's remarkable remarks and gave a thought worthy of lifelong remembrance as he advised emphatically: "Don't use your diploma for a pillow!"

One device by which the administration has attempted in the South Portland school system to discourage the misuse of diplomas is the professional project. Seventy elementary teachers submitted project reports last year, while this year the requirement has been extended to all our teachers, some one hundred and thirty in number. "Project" is here used, it should be noted, not in the ordinary sense of a limited class "activity," but rather to describe an organized experiment in which a teacher attempts some new method or procedure; it may or may not involve an "activity."

I. The Project Requirement

Each teacher is asked to select a definite professional project and to report upon the results before the close of the school year. The projects may be of the following or similar types:

1. A new classroom method or procedure. *Examples:* Vocabulary-building project; enrichment of course for bright pupils.

2. The solution of some teaching or disciplinary difficulty. *Examples:* Improving instruction in arithmetical problems; improving control of a restless class.

3. The definite application of suggestions obtained from professional reading. *Examples:* Taking seriously some of Smith's "One Hundred Ways of Teaching Silent Reading" or Fontaine's "Ways to Better Teaching in the Secondary School."

4. The trial of a new textbook or supplementary reader. *Example:* Using a science reader and building an activity program about it.

5. A limited research problem, possibly involving the use of tests and measurements. *Example:* A special reading program for a retarded group, with a progress checked by tests.

[1]Superintendent of Schools, South Portland, Maine.

Direct vs. Book Approach

Many teachers, having a definite problem or procedure in mind, proceed directly with their projects, at the same time seeking guidance from one or more sources in the professional literature. Other teachers, with a less definite problem, make what may be termed a "book approach"; a teacher in this group selects an approved professional book for thoughtful reading and then seeks to apply to her classroom work some of the suggestions in the book. Those making this type of approach are cautioned not to allow the final report to become a mere "book report."

Among the teachers who employed the "book approach" last year, were two who selected volumes dealing with discipline. A first-year teacher, frankly acknowledging her difficulties, read her book carefully and found a number of helpful devices which the classroom visitor could see had helped her greatly. The other teacher, with many years of successful experience to her credit, chose another volume for the light it could give her on the "new" discipline, lest she become too "old-fashioned." Her experiments and the comments thereon furnish refreshing reading. She wholeheartedly disagrees with her authority most of the time, yet she comes away with some of the "new" discipline as a part of her regular teaching equipment.

Both the "direct" and "book" approaches to the professional project, it should be noted, imply the reading of professional literature appropriate to the problem concerned. A well-considered bibliography is an essential part of each project report.

The teacher's project is expected to involve either a procedure not attempted before, or a procedure which has been carried on heretofore, but perhaps not in a systematic, critical manner. If a teacher is already doing something unusually worth while, the professional project becomes largely a matter of submitting a brief critical account of what is being done, together with suitable professional references. The same project is not to be submitted for two successive years, unless it is sufficiently important to warrant further definite trial and experiment.

The project requirement is met ordinarily in a purely individual manner, but in a few instances small groups have selected joint projects, all members of the group working on the same problem for comparative results, or each member specializing on some one aspect of the problem. The results of a joint project are presented in a single group report. Three primary teachers in one building worked together in the field of remedial reading, another group developed an ambitious citizenship project, while several high-school teachers paired to make comparisons of teaching methods.

Each teacher, by mid-fall, registers with her building principal the following information:

1. The nature of the proposed project, in brief statement form.

2. Important references in professional literature.

The completed registration forms are later forwarded to the central office for approval. The final reports are submitted during the spring term. Certain techniques of form and arrangement are observed so that the reports may be more easily read and compared.

Last year the simple "passed" and "honors" ranking system was applied to the project reports, but schoolish ranking here, as in so many instances, proved unsatisfactory, and this year a brief personal note was attached to each returned report. These notes, which contained both criticism and appreciation, appeared to meet with wide approval on the part of the teachers.

II. Types of Projects

During the past year English in its various phases held first rank among the projects submitted by the elementary teachers; 31 of 90 reports were in this field. Several instructors were interested in improving their reading instruction in some definite way, others engaged especially in vocabulary building, while others worked on oral themes, literary appreciation, improvement of spelling, and so on. Nine teach-

ers, engaged in teaching grades ranging from two to seven, had the hardihood to attempt creative poetry in their classes. Only a limited amount of genius was revealed, as might be expected, but the teachers did find many willing workers, and the reports in the aggregate present a generous sprinkling of very readable verse; best of all, a large number of children found that poetry is something that can be enjoyed and written as well as memorized.

Twenty-six elementary teachers chose projects in the field of the social studies. Many of these choices were made apparently because the social studies lend themselves so well to the development of popular types of "activities." A few citizenship and guidance projects were among those in the social-studies group. Health and safety were the concern of several teachers and two or three primary teachers were remarkably successful in obtaining home co-operation in making life healthier and safer for the younger children.

Arithmetic appeared as a correlated subject in many of the social-study activities, but purely arithmetical projects were chosen by only a few teachers. One of these, however, was an outstanding project, consisting of a thoroughgoing trial of a new first-grade arithmetic reader, with the result that a class group without extraordinary I.Q.'s attained the extraordinary grade equivalent of 3.0 in numbers in an April survey test.

The 34 high-school professional projects, as one might expect, followed departmental lines to a large extent; but it may be regarded as significant that at least fourteen of these projects show a common desire to make classroom work more vital and interesting, Two French teachers strove to promote literary appreciation and an interest in French contemporary life and history. Two English teachers co-operated to learn whether a self-checking laboratory method of "old-fashioned" drill would better keep their classes alert. Another English teacher succeeded in getting a group of seniors to read and write poetry and like it. A Latin teacher gave successful emphasis to the living aspects of her language. A biology teacher considered especially the practical aspects of that science. A mathematics teacher, making a psychological approach, attempted to "break down the barrier causing monotony and lack of interest in class."

Another and smaller group of high-school projects centered about vocabulary building. Two English teachers, disturbed by the meager vocabularies of their freshman charges, developed a very comprehensive project to improve the situation and they were able to demonstrate through standardized tests how much better the individual vocabularies had become. One commercial teacher built vocabularies to enrich her courses in stenography, while another worked especially to give her bookkeeping students an effective business vocabulary.

III. Administrative Aspects

The professional project, like any requirement which a school system may ask of its teachers, presents some administrative problems. The projects selected by the teachers may be of unequal value and importance, but it can be said that a similar inequality may occur in the fulfillment of almost any administrative requirement. An attempt is made to see that all the projects proposed are worth while, but it is recognized that some teachers will take the requirement less seriously than others. Teacher A will carry her project through thoroughly and conscientiously. Teacher B may do a fairly good job, but it will be done rather perfunctorily; while the occasional Teacher C will try to "get by" in the easiest possible way. The value of any device rests largely with those who use it. But the very inequality of purpose and accomplishment is exactly one of the things the administrator is interested in finding out.

The administrator is confronted with something of a problem in handling the project reports. We have so far set a single date for the submission of reports, but in the future it is proposed to take advantage of the varying periods required to complete the different projects and devise a stagger system for the handling of reports. In this way the process of reading and evaluating can be spread over a considerable period.

The superintendent in a smaller school system, faced with a formidable pile of project reports and exhibits, may at first glance feel dismayed. But his courage and sense of good sportsmanship will surely come to his rescue as he reflects how very thankful many of his teachers would be if they had to face such a pile only once a year.

The responsibility for evaluating the reports must necessarily be divided in the larger school system. The evaluation process might, for example, be assigned to the principals who, in turn, could briefly report their judgments to the superintendent and call his attention to outstanding projects.

IV. Summary of Values

The various values and benefits of the professional project for the most part have already been implied, but a summary restatement may prove helpful.

The professional project may serve the administrator as a measuring device of a teacher's ability to organize and carry through plans or to adapt and apply new ideas. It may assist in the supervisory program, giving a desirable definiteness and objectivity to portions of the teacher's work. It provides an added opportunity to discover teachers' problems and interests. Ideas may be revealed which will be of value to other teachers. It may in some instances furnish a "yardstick," showing what really can be done with a new textbook, a new method, or a certain type of activity.

The professional project helps very materially to keep the individual teacher progressive. It leads her to consider her problems thoughtfully and, of more importance, to do something about them. It brings about a closer contact with professional literature than she would have otherwise; this contact with worth-while books and articles is stimulating to the individual teacher, and multiplied a hundredfold in a large group, it constitutes a leaven which is of inestimable benefit to the school system as a whole.

Required *Home Study* is Unwise

E. Gladys Teahan[1]

It is an almost universal practice to require students of elementary and high school to do certain required homework. This is done on the assumption that pupils benefit by this procedure. Observation gave me the impression that this time-honored notion may be false, and accordingly I decided to make an investigation to test the validity of the assumption.

As a laboratory for my experiment, I chose the Junior School, at Haddonfield, N. J. This school is made up of the sixth, seventh, and eighth grades with each grade divided into four groups. The subject selected for the experiment was arithmetic.

There are three teachers of arithmetic in the Junior School; one teaches the four groups of the sixth grade; another teaches four groups of the seventh grade; and a third teaches the four groups of the eighth grade. Each teacher is a college graduate with several years of teaching experience.

The experiment applied the same methods in the teaching of all the groups, the only difference in procedure being the requirement of home study for one half of them. Enforced home study in Haddonfield requires evidence that the work has been done. It consists of definite assignments for written work. The teacher's judgment determines the limit of the amount, and the time required to do it is determined by the ability of the pupil. There is a minimum of three assignments a week.

Before the experiment was made, I had a conference with the three teachers and the principal of the school to insure co-operation. The teachers were much interested, and it was agreed to keep the undertaking an absolute secret. Parents, pupils, and other members of the school did not know that an experiment was under way.

On the basis of the teachers' judgments of abilities, the Otis intelligence test and the report-card grades in arithmetic for the first marking period, two groups were selected from each grade for teaching with required home study, and two groups were selected for teaching without any reference to home study. On the basis of the intelligence test, the ratio of ability between the home-study group and the no-home-study group in each grade was remarkably close — approaching unity. The prior teacher judgment of ability paralleled the division on the basis of the I.Q.'s, making the conditions for the experiment unusually fine.

In order to determine the improvement in learning of the different groups, the Stanford achievement test, Form V, was given to the pupils at the beginning of the experiment; and after an interval of 115 school days, the Stanford achievement test, Form W, was given.

As a result, it was found that of the required-home-study group, 89.9 per cent showed a median improvement of 11.10 per cent, while of the no-home-study group, 92.3 per cent showed a median improvement of 11.18 per cent. Stated in another way, improvement was shown by 2.5 per cent more pupils in the no-home-study group than in the home-study group. On the basis of median achievement, the improvement of the no-home-study group exceeded the home-study group by .08 of 1 per cent.

The poll of the teachers after the experiment was completed indicated that each teacher carried on the work in arithmetic as directed. Each of the teachers was obliged to give more attention and time to the group which had done required homework. This was due to the extra assignment, the checking of the work, and the constant insistence on the part of the teacher for the required homework from the slow and indifferent pupils.

The experiment enables me to draw only one conclusion — the required homework in arithmetic was not an advantage to the pupils. From this it may be concluded with considerable authority, that the extra time and effort exacted from the teacher for required home study will interfere with her vigor and have a corresponding influence on her teaching. Freedom from the assignment and the checking of homework will save the teacher time and energy that may be valuable in planning and actual teaching. Required homework undoubtedly makes its contribution to daytime fatigue of the pupils.

Incidentally, this experiment is a contribution to the answer to the question, "Can a child be effectively compelled to learn?" The experiment is indicative that the important element in teaching is the development of right attitudes of learning.

Learning cannot be compelled effectively. Tradition issues a command and creates a task. Tasks are not inspiring. True learning and ultimate scholarship will come from the urge to achieve. The teacher who relies on interest and wise guidance will tend to create this urge in the pupils. Attitude of mind is the important element of the learner.

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[1]Secretary and Assistant to the Superintendent of Schools, Haddonfield, N. J.

THE AMERICAN
School Board Journal
EDITORS:
WM. GEO. BRUCE WM. C. BRUCE

The President of the Board of Education

IN CONTEMPLATING the outstanding public positions in an American community, there is none which affords a finer opportunity for civic service than the school-board presidency. Concerned as it is with the administration of the school system and with the rearing of the youth into worthy and useful citizenship, this office affects not only the present but also the future democracy of the nation.

It would be idle to compare the importance of the school-board presidency with such offices as the mayoralty, the judgeships, and the presidencies of municipal commissions and boards entrusted with the health, safety, and welfare of the community. Each performs an important task in the scheme of a democratic state and local government. It need only be pointed out that popular education is the prerequisite to that economic, civic, and social security which a democratic government is intended to promote and continue. That being true, a well-governed school system becomes the primary concern of a government which desires to perpetuate its best service for human welfare, and the men who direct that school system are entrusted with an indispensable and sacred task. To be at the legal head of such a school system is one of the finest privileges of American citizenship.

The history of school administration in the United States records the fact that at one period certain school systems have enjoyed the highest distinction in point of prestige and efficiency, and at another period quite the contrary. Certain cities have been pointed to for years as maintaining model school systems. Then it came about that the schools of these same cities declined in achievement, and scandals and strife attended their administration.

The answer to the question, What has caused these variations in standards and accomplishment?, may quite naturally point to the school superintendent as the responsible school head. But, that is not the whole answer. The cause goes back to the kind of board of education in control of the schools and the leadership which that board manifested. Only out of the right administrative leadership of a strong board can a great school superintendent be reared. And that leadership is ultimately expressed in the strength and character of the president of the board.

There are cities in this country today that enjoy the distinction of maintaining a school system of the highest order. Due to the personality, character, and efficiency of the superintendent? Yes, because only with that kind of a school superintendent can a school system swing itself into the higher levels.

But where an ideal situation is found, there also the board of education is made up of the highest type of citizenship, and the president of the board exemplifies that citizenship in a marked degree. Here the school-board president is not only an outstanding character in the community, a clear-headed and courageous man of affairs, progressive in thought and action, but one also who is a constant inspiration to the superintendent and encourages him to give full play to all the possibilities of his position. Invariably this president has clear-cut ideals of education, an appreciation for democracy as a mode of life as well as government, and a social philosophy that rises above class and group consciousness to reach for the welfare of the great body of citizens. He may not be able to express himself in the technical language of the professional educator and it is even possible that he may be a man of extremely limited formal education. But it is certain that he has enormously good judgment — somewhat like former Governor Al Smith — and good will for the cause of education. And above all he is certain to understand the temper of the community and the rate of progress of which it is capable. In time of trouble he is a strong citadel to meet opposition and to calm the troubled waters.

In analyzing the presidency of the boards of educations, as exemplified throughout the nation, it must be concluded that it reflects the American concept in an eloquent degree. Surely, no office of public trust involves a greater responsibility and affords a finer and more lasting contribution to that citizenship which is designed to make for the stability, well-being, and perpetuity of a great nation.

Orderly Procedure in School-Board Deliberations

IN ORDER that a board of education may realize its best possibilities, it must above all things enjoy public confidence. The individual board member here and there may not enjoy the respect to which his office entitles him, but the collective body must carry on its official deliberations with dignity and precision and in a manner that will maintain its prestige as an honorable and efficient institution.

The unpleasant incidents in school-board deliberation which come to the surface here and there in press reports would indicate that someone had forgotten that decorum and order that should characterize such a body. Sometimes the fault lies with an overzealous newspaper reporter. But, as a rule, some board member who has become irritable and combative and has forgotten parliamentary practice and the rules of debate, has afforded a sensational newspaper story.

An editor of a reputable New England newspaper recently wrote: "There seems to be no rule of the school board, except that the one who has the most tricks up his sleeve wins. Parliamentary procedure gives way to a battle of wits. The meeting . . . would serve excellently as model for the writer of a farce. It is almost inconceivable that it actually happened as it did. It served to amuse the large audience present, but it must have been an eye-opener and a shock to those who have never before attended a school committee meeting. It reached in many instances the heights of absurdity. There is probably no board in the city a greater stickler for legality of procedure, yet there is probably no board where it is more ignored when occasion demands."

Whether justly made or not, this is a severe criticism, which unquestionably has the effect of weakening that very confidence and respect which a board of education must and ought to enjoy. Here it is not merely the question of standing in a favorable light before the general public, but also of commanding the obedience and loyalty of the entire school personnel.

There are many instances in the field of school administration where boards of education are exposed to unjust attacks. Situations will arise which are involved and vexatious and which cannot be untangled without displeasing a fraction of the citizenship. But the board of education that will solve its problems in the light of justice and common sense, and will not allow itself to be stampeded from its purpose, will win public approval in the end.

It is the thoughtless and irrational member who starts things by antagonizing something or somebody and thus gives vent to his feelings. Resentment and retaliation follow, and when the row is in progress, it is difficult to find a peaceful and logical adjustment.

It is not only the duty of the presiding officer to insist upon the orderly transaction of public business, but it is equally the duty of the membership to observe the proprieties which should characterize a public deliberative body. The board of education ought to set an example in performing a public task with thoroughness, dispatch, and efficiency.

Changing the School Administrative Structure

IN EVERY field of activity there may be found those who have an eye for the faulty and irregular and who readily come forward with nostrums and remedies. The thing that *is* must be changed into something that is *not*. A system or method may be right but the operations under the same may be wrong. A law may be excellent, but the manner of its administration may be questioned.

In the field of school administration many suggestions are made

from time to time which seek to correct apparent or real evils. The administrative structure may be quite workable and sound and make possible a school system of exceptional efficiency. And yet when someone fails to realize the possibilities under a given plan of operation the tendency is to condemn the plan rather than those who operate under it. Instead of tightening a loose joint which would remedy the trouble the whole machinery is condemned.

It happens here and there that a board of education has entered into policies and departures which have proved unwise. Frequently the board is subjected to public criticism, but sometimes, too, someone arises to say that the administrative machinery is faulty and needs reconstruction. Occasionally someone in a moment of irritation resorts to the extreme.

In the State of Tennessee an educator observed that several boards of education failed to comply with the common equities of their office. Someone was guilty of practicing nepotism. Thereupon a southern educator in a public address arose and said:

"'To the victor belongs the spoils!' has been translated during the present economic depression to mean that 'to the board member's sons, daughters, relatives, friends and political henchmen belong the teaching positions.'

"Literally scores of instances could be cited wherein poorly qualified teachers have been given preference in appointments to teaching positions over well trained and otherwise qualified teachers."

The speaker then, as a remedy, proposed that all local and county school boards be wiped out and that a state board henceforth control the appointment of teachers and the administration of the schools.

While the indictment against the school authorities of one southern state is a severe one, it remains a question whether the remedy is an expedient one. The local control of the schools has become a fundamental factor in the administration of the nation's schools. To remove that control destroys one of the finest incentives in popular education.

The American people have been taught to believe that the public schools belong to the people and that a voice in their control is regarded as a sacred privilege of citizenship. It is this intimate concern in the schools that has proved a vital force in promoting the cause of popular education as a training for the duties of citizenship.

There is nothing wrong with a system which grants a voice to the people to govern their own schools. If a weakness is discovered, such weakness may lie with the individual rather than with the system. If the administrative machinery is sound then any dereliction must be charged to those who operate the same. To scrap a piece of mechanism because someone had operated it in a wrong manner is extremely unwise and wasteful.

The proposal to wipe out the board of education because it has not measured up to expectations is not entirely new. Usually, however, the desired change is better accomplished through a change in personnel.

The modern board of education is not the thought of a day or a year. It is the evolution of many years, many minds, and many experiences. It stands today as a recognized institution in the fostering and promotion of popular education and giving stability and momentum to the nation's schools. It is not likely that any thoughtful and judicious legislature will, because of isolated cases of abuse, care to discard an institution which has rendered a valuable and indispensable service to the country.

Swing of the School-Administrative Pendulum

THE observers in the field of school administration have noted that the progress made during the last three decades has not only clarified the scope and function of the several factors involved but has also established definite conceptions on procedure in creating the necessary official machinery. These conceptions have found general acceptance and are no longer subject to further argument or controversy.

But strange as it may seem, periodically someone pops up with a proposal which aims to revive methods that were discarded many years ago. These attempts are usually made by individuals who have no familiarity with the history of school administration or with the accepted standards. The attempts become serious, however, only when some legislator seeks to turn back the clock by destroying that which has been achieved through years of improvement.

To illustrate: The changes in the field of school administration as applied to city boards of education have gone from the large to the smaller board, from a shorter to longer term of service, and from district or ward representation to representation at large.

There is hankering here and there to get back to ward or district representation in the formation of boards of education. The experience of the past has taught that ward or district representation makes for sectional rivalry at the expense of the school system as a whole. The representative champions his district and if he is an exceptional leader will outstrip his competitor. Schoolhouses may be located to suit local interests without regard to the rest of the districts. Thus, a city with twelve wards will have just twelve separate districts instead of one unified school system.

In a midwest state where legislation providing a turnback to the ward system of representation was proposed attention was called to the evils experienced in one of the cities in a newspaper editorial which said: "Under the ward plan of representation we had plenty of political log rolling. One 'school boss' held up everything until he got what he wanted. And immediately another 'school boss' started in to get what he wanted. Favoritism, local pettiness, political pull in teaching jobs and in board purchases — these things were the rule."

It is incumbent upon school authorities to hold to the progress that has been made in the matter of representation and to resist innovations likely to destroy that which has been evolved by years of study and experimentation.

Filling School-Board Membership Vacancies

THE infrequent vacancies which occur in a board-of-education membership, between the interval of school elections, have been dealt with under the various state laws in one of three ways. One method calls for a special election; another empowers the existing body to fill the vacancy by a vote of its membership; a third method simply leaves the position open until the next election.

The first plan is sometimes objected to because it involves a large election expense which, in the judgment of some citizens, might be obviated. The third prolongs a vacancy which, in the nature of things, ought not to exist. The second, which rests the authority in the board itself, may be deemed both feasible and practical. And yet the method has been subject to sharp criticism.

In Dallas, Texas, where the board of education fills its own vacancies, the argument is made that the procedure tends to make the board a self-perpetuating organization. The argument gains plausibility in that the member so appointed is strengthened in his candidacy when the regular election comes around. He enjoys the prestige of board membership and thus, it is held, stands a better chance of an election.

The Dallas *News*, in commenting on the criticism, says: "The *News* sees no objection to this practice. So long as the boards are satisfying the parents of the school children, they will continue to be elected. When their work is unsatisfactory, they will be ousted. The voter who is content with the existing personnel prefers knowing who are the candidates indorsed by the boards. Dallas has been well and ably served for several years past by the present board. Its replacement selections have been carefully made. The verdict at the polls is sufficient proof."

The matter of vacancies on a board of education may be relative only. A board enjoying a large membership may have several vacancies and yet function efficiently. At the same time, a smaller body may be seriously handicapped in its work, if the personnel is not complete.

Local conditions, unquestionably, must determine the expediency of adopting one or the other method in filling vacancies. There can be no doubt, however, that a vacancy which weakens a board as a whole, should be filled with a minimum loss of time. The law contemplates a complete personnel in all school-administrative bodies.

Failures of *High-School Students* in St. Louis

George R. Johnson[1]

Failures have been occurring among the high-school pupils in St. Louis at a very expensive rate. Over a period of four years about one tenth of all courses pursued in the high school have been repeated at a cost estimated to exceed a million dollars. But even this is not all. Another tenth of all courses in progress have been dropped before the end of the term. The records indicate that discouragement or fear of ultimate failure probably actuated the withdrawal from school in most cases. Since new students do not enter in mid-term to take the places of those who drop out, these incompleted courses represent the loss of another million dollars or more in high-school cost in four years.

The purely financial aspect of this problem, however, is not its worst feature. The crushing of ambition, the breaking down of mental health under the nervous strain, the fostering of feelings of injustice in many cases, are mental and social consequences not to be desired.

To ascertain the causes of these failures, Dr. Henry J. Gerling, Superintendent of Instruction, directed the Division of Tests and Measurements to undertake a survey of the high schools covering the first semester of the school year 1934–35. The study included a careful analysis of the records of all students enrolled during that time, the separate class records and daily program of each teacher, and additional data obtained through the administration of standardized tests. Briefly stated, the major findings of this survey are:

Findings of the Survey

1. The per cent of high-school failures decreased from 11 per cent in the first semester of 1931–32, when the problem was raised publicly by the superintendent, to 8 per cent in the first semester of 1934–35, the period covered by this survey.

2. The failures vary between schools from 5 per cent in one high school to 10 per cent in another. The school having 10 per cent failure had a higher average intelligence rating than the school having 5 per cent failure, also a higher rating by achievement test.

3. A larger per cent of ninth-grade children failed in the high schools than in the ninth-grade centers.[2]

	High School	*Ninth-Grade Centers*
First Term....	12 per cent	10 per cent
Second Term..	9 per cent	5 per cent

4. Failure in mathematics in the first term is 16 per cent in the high schools and 15 per cent in the ninth-grade centers. Mathematics in all terms has a larger per cent of failure than any other subject.

5. The subjects having the smallest per cent of failure are art and home economics, each with 2 per cent, and music with 1 per cent.

6. Failure in first-term algebra varies between ninth-grade centers from 4 to 30 per cent. Centers in which 30 per cent failed had pupils of about the same ability as those in which only 4 per cent failed.

7. Results showed a decided variation in the rate of failure between teachers of the same subject and in the same school. Some classes having a large per cent of failure and a low median grade by the teacher made high scores on the standardized tests.

8. Of all the grades given to children with IQ's below 90 in high schools, 17 per cent were failing grades. Of those with IQ's of 90 to 110, 8 per cent were failing grades. Of those with IQ's of 110 or above 3½ per cent were failing grades.

9. Among the failures in all high schools 63 per cent were boys. In the ninth-grade centers 71 per cent were boys.

10. The median grade for boys in all subjects is 76.8 and for girls 80.3; but on standardized tests the boys made better scores on the average than the girls.

11. Men teachers grade boys and girls more nearly alike than women teachers do, as shown below:

Grades Given to Pupils	*Median Grade for Boys*	*Median Grade for Girls*
By Men.....	78.3	80.3
By Women.....	75.5	80.3

12. The median intelligence quotient of pupils who failed is 99.6. On the average, therefore, these pupils have a normal intelligence rating and 21 per cent of them have intelligence quotients of 110 or higher.

13. Twenty per cent of all the pupils who failed in the second term of algebra made higher scores on the standardized algebra test than the median score for those who passed.

14. Achievement in second-term algebra is better on the average in St. Louis than the norms established for the test.

15. Class medians range from 14 to 33 in the second term. This wide difference in achievement between algebra classes, as measured by the tests, suggests a need for a better common understanding of what is to be accomplished.

16. Ninth-grade center classes have better scores in second-term algebra than the ninth-grade classes in the high schools. In consideration of the larger classes in the ninth-grade centers and the number of pupils transferred to these centers from the high schools because of poor work, this showing is unexpected.

17. On the whole, St. Louis high-school graduates test higher in achievement than the norms established by the Sones-Harry High School Achievement Test. This superiority is maintained in all divisions of the test, but is most pronounced in English.

High-School Achievement

When considering the test results, attention should be directed to the fact that a median is merely the index of mass measurement; it does not serve to show how high the scores range for the best pupils in the group or how low they are for the poorest. The high median score for any group, likewise, may be due to the presence of less capable pupils, even though the work of the brighter pupils has a very high rating.

The superior standing of the St. Louis schools, as shown by these group tests, is doubtless due in part to the careful work of teachers, principals, and others; but in this connection the high rate of pupil failure and withdrawal, eliminating the less intelligent or the less diligent, must be considered. St. Louis has relatively a low percentage of its adolescent population enrolled in the high schools. According to the census of 1930, the school enrollment in St. Louis was 84 per cent for children 14 and 15 years of age, 42 per cent for those 16 and 17, and 15 per cent for those 18 to 20. In 1933–34, a larger enrollment has been reported in the high schools of all cities, but it is probable that the increase does not involve any marked change in relativity with respect to the proportion of the population enrolled in the different cities. High group scores in St. Louis may be interpreted, therefore, as being due only in part to high standards of individual scholarship in the community, and due in some measure to a rigorous selection of the high-school population.

Withdrawal of Pupils

For the period covered by the survey the per cent of withdrawals during the term equaled the per cent of failures at the end of the term; and evidence indicates that a large portion of the withdrawals were impelled to quit by the prospect of ultimate failure. The customary reason offered by pupils for leaving school is that they must help at home or seek employment; but through inquiries made at the homes of these children after several months had elapsed, it was found that many of them were not working. Furthermore, the school records of such pupils show that they were receiving low marks while they were in school.

That the prospect of failure constitutes a chief cause of withdrawal from the school is indicated by the statistical tables. The median intelligence quotient for all who left school is below 100, while the median for those who remained in school is above 100. Consider with this finding the fact that the ratio of failure is high among pupils of the low IQ groups. Again, more than half of those who left school are boys. Consider with this showing, the fact that the proportion of failure is high among boys. Finally, the grades given by teachers to children who entered the high school in 1931 and left before graduating are much lower than the grades awarded to members of the same class who stayed in school until graduation. In English, for example, only 4 per cent of the grades for withdrawal pupils were "E" (excellent), while 21 per cent were "F" (failure). Among the graduates, only 3 per cent of the English grades were "F," while 15 per cent were "E." A summation of these facts for all subjects combined is shown graphically in Chart I.

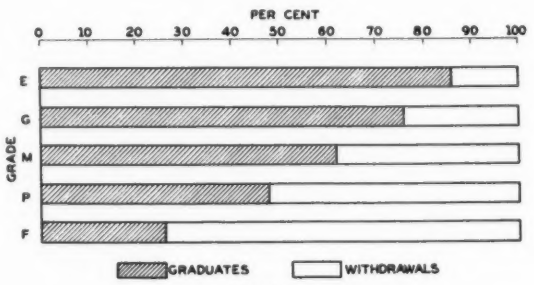


CHART I

That prospective failure is the actuating motive for quitting school before graduation in very many cases cannot be doubted in the light of these facts; and that it is the deciding factor in a majority of cases seems probable. In other words, very many high-school students who leave before the end of the term are, in fact, eliminated by the grading system.

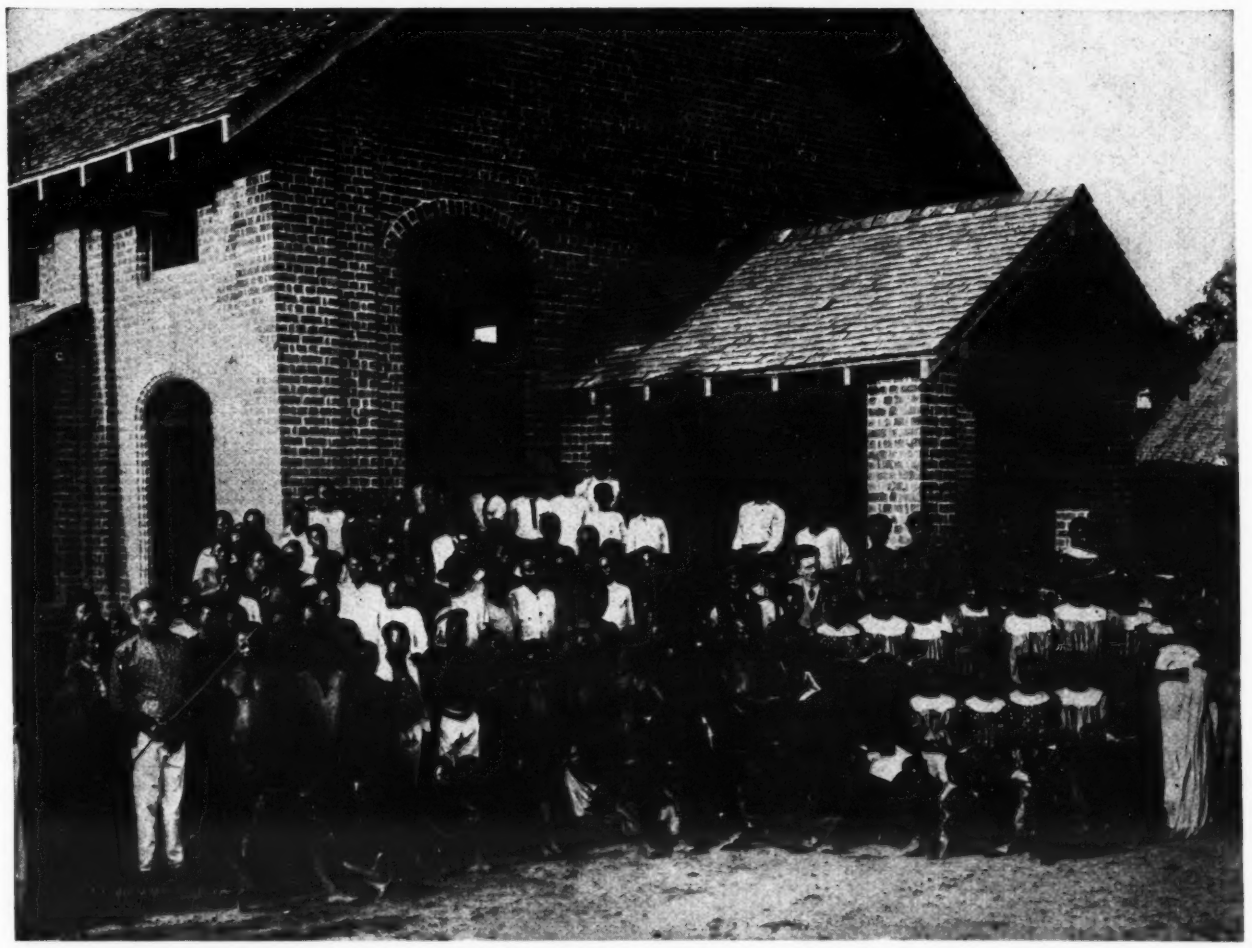
If an additional portion of young people could be retained in the high schools, the scholastic attainment for the community as a whole certainly could be raised; and even though the doing of it might lower the average grades of the group, the brighter pupils could be held, nevertheless, to the same high standards of individual achievement.

It is even possible to raise the standard of work for the brighter pupils while retaining at the same time many less capable children who are now quitting school on account of failure. By correcting such inequalities as exist in classes taught by different teachers, by adjusting the pupil's load in each individual case to the child's predetermined capacity, and by making the performance of routine assignments subordinate to the development of the whole personality, it ought to be possible in all but very exceptional cases to eliminate failure from high-school methods.

[1]Director of Division of Tests and Measurements, St. Louis Public Schools.

[2]Ninth-grade centers refer to classes conducted in a number of elementary-school buildings under the supervision of the elementary-school principals as a relief to the overcrowded condition of the high schools. For a more detailed description of these centers, see the AMERICAN SCHOOL BOARD JOURNAL, December, 1934, page 44.

In AFRICA



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School-Business Officials Meet for 24th Session in Minneapolis

That school systems are driving forward as an essential service to democracy and are facing the future with optimism was made clear by the spirit as well as the agenda of the 24th annual convention of the National Association of Public-School Business Officials, held at Minneapolis during the week of October 14 to 19. In reality the meeting was a double program — first a high-grade convention of speeches, round-tables, and resolutions ably conducted under the presidency of Mr. J. J. Ball, on October 15 to 18 inclusive; and second, a unique auxiliary convention of practical school-plant-maintenance demonstrations and lectures, conducted on October 17, 18, and 19, by the very competent associates of Mr. George F. Womrath in the marvelous Minneapolis School-Plant Administration Building. In point of attendance the meeting was the largest in the history of the association.

The school-business officials of the United States are rapidly developing an occupational consciousness that is raising the offices of school-business manager, school-board secretary, purchasing agent, superintendent of school plant, accountant, and auditor to a new level of respect and permanence. In practically all cities the political elements are fading into the background as the technical and "career" aspects of these offices are rising and their incumbents are demonstrating the value of years of service and experience, and the need of technical training in the underlying sciences related to public administration, architecture, building construction, engineering, public finance, accounting, etc. It is not without significance that the ancient bugbear of the relations of the school-business executive to the superintendent was not mentioned in the discussions at the Minneapolis meeting. Within the limits of their functions the school-business officials are bringing to bear a high quality of technical service and expert judgment, and are primarily concerned for the educational results of their work.

In its 24 years of activity the national association has grown from an accountants' group to an inclusive organization in which every aspect of the business conduct of public schools comes under scrutiny. President Ball, in his opening address, pointed to the fact that since 1928, the association's chief activity has been research in such fields as (1) cost accounting, (2) purchase and distribution of supplies, (3) school bonds, (4) floors, and (5) insurance. By action taken at Minneapolis, these basic studies of the association will be continued and there will be added research in (1) price variations and price fixing of building and school equipment and supplies, (2) transportation of pupils in cities and rural communities, (3) uniformity in accounting terminology and method. The association also decided to establish a bulletin service or other medium of exchanging technical and confidential information on school-business problems, prices, and the outcomes of successful experiments.

MR. JAMES J. BALL
As President of the Association, he prepared an outstanding program and guided the organization to a new program of research activities.

The Program

The first day of the main program took up general school-business problems. Supt. Carroll R. Reed, of Minneapolis, spoke of the paradox of a greatly increased school load, due to greater attendance and larger educational responsibility, all of which must be met by a radically reduced budget income. He urged that curtailment of school funds should be in proportion to other curtailment of essential local services. He pointed to the danger of reducing the morale of teachers by cutting salaries and of greatly increasing the size of classes. He explained in detail the splendid fight made in Minneapolis for maintaining essential services. City-County Supt. C. E. Campton, of Two Harbors, Minn., explained the value of merging rural schools into county units for both increasing the uniformly high efficiency of the schools and of saving from 20 to 25 per cent of the costs. Mr. Ira G. Flocken, chief accountant of the Pittsburgh board of education, read a thoughtful paper on the essential steps needed for making effective a scientifically correct budget. Mr. F. G. Roberts described the newest developments in and advantages of instructional sound-motion pictures.

General business problems were discussed on Wednesday by Mr. John W. Lewis, able assistant superintendent of schools in charge of business at Baltimore, who described the "Use of Tabulating Machinery as an Aid to the Business Administration of Schools." "The Janitor-Supplies Racket" was exposed in all its petty profit-grabbing by Dr. H. H. Linn, business manager of the Muskegon, Mich., board of education. A sound basis for the discussion of school architecture and building problems was laid by Mr. Charles D. Anderson, of New Jersey, in his practical description of plans for "Co-ordinated School and City Planning."

On the theory that schoolhouse planning and construction have been so neglected since 1929 that they are again paramount administrative problems, the entire program on Thursday centered on ways and means of better planning and more economical construction of educationally better school buildings. Mr. H. W. Schmidt, state supervisor of school buildings, Wisconsin Department of Public Instruction, drove home some hard facts about the co-operative work of "The Triumvirate of a School-Building Program" — (1) the school-business executive who must supervise the financing and practical management of building projects; (2) the superintendent who must manage the project with an eye upon educational results rather than personal self-satisfaction; and (3) the architect who must translate educational needs into building facilities without acting as a tyrant and without letting artistic inclinations run away with his economic building judgment. Mr. C. L. Wooldridge, superintendent of buildings at Pittsburgh, laid down the principle that school-building costs cannot be made comparative nationally or even within state limits, but locally they are a valuable instrument for better planning and more economical construction. He described the Pittsburgh plan which is valid locally because it avoids such variables as changed labor costs, climate, the educational program, etc. In Pittsburgh, a unit known as the occupational cubage has been set up to include only the air-space content of actually usable instructional areas. These cubages are subtracted from the total cubage of buildings and are figured separately on the basis of the total cost of buildings. The relations between the occupational cubage and the total cubage determines the educational efficiency of a building. It should approach an ideal of 49.98 per cent, and has many advantages for upsetting the erroneous notion that a low-cost total cubage indicates an economical building. Architect M. M. Steen, of Pittsburgh, explained Mr. Wooldridge's scheme in a series of charts that analyzed typical as well as theoretical building plans. Mr. Steen urged that all cubic-cost studies to be significant should be broken down into (1) general contract, (2) heating and ventilation, (3) plumbing, and (4) electrical work, in order to locate out-of-line costs.

Dr. Homer W. Anderson, whose scholarly and practical interest in school architecture goes back to the supervision of some sixty millions of new school-building construction in Denver and Detroit, laid down the new applications of the principles of (*a*) accessibility, (*b*) orientation, (*c*) association, (*d*) noninterference, and (*e*) flexibility to "The Adaptation of the High-School Building to the School Program."

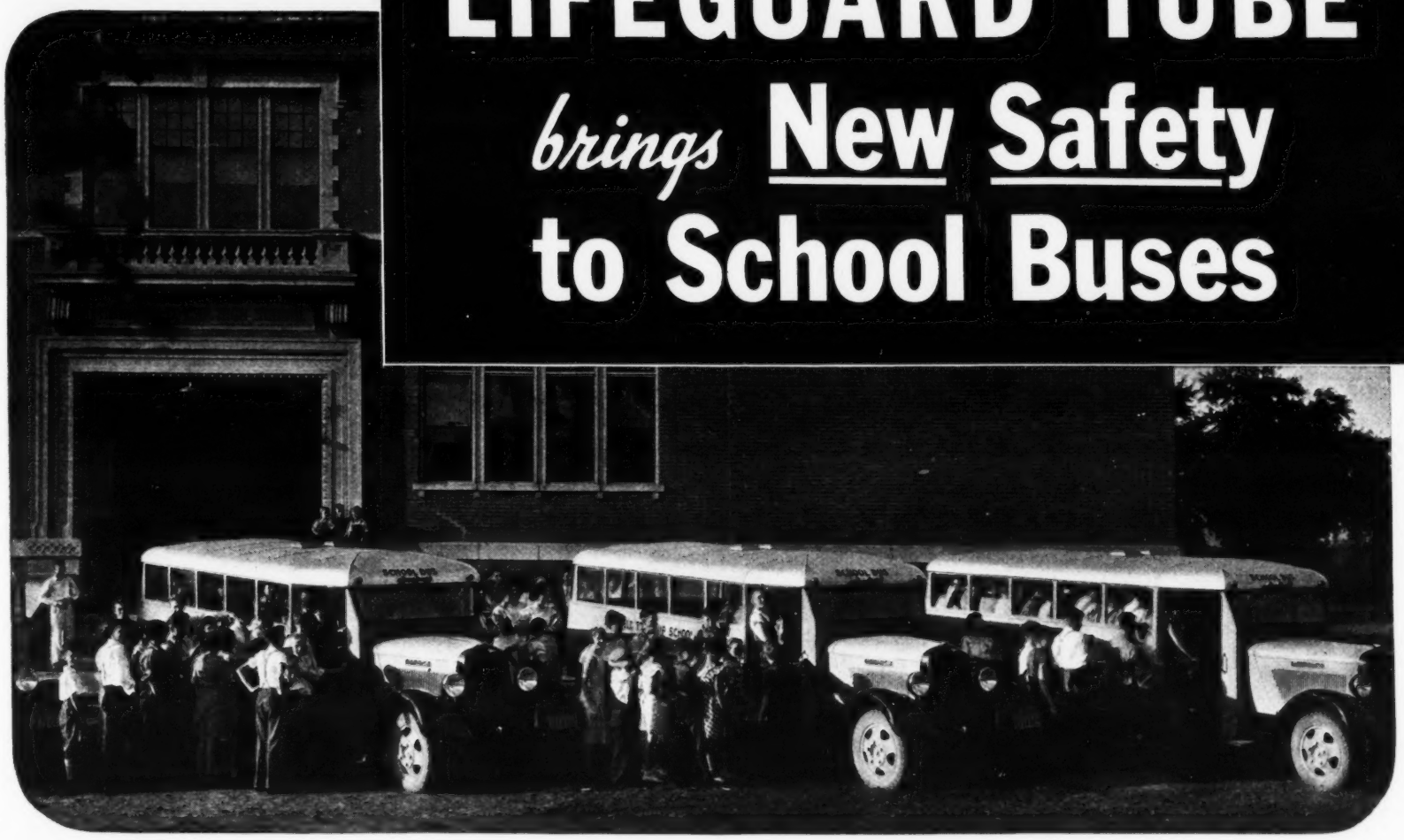
An experienced school architect's views of "School-Building Problems" led Mr. Ernest T. Friton of St. Louis, to suggest a high quality of fireproof construction, the use of carefully chosen materials, high-quality plumbing and heating apparatus — all combined in a compactly planned layout with a modestly plain but elegant design as the best solution of the present problems. Dr. N. E. Viles, whose scholarly studies and business-like application of his findings on the relation of construction to insurance costs has saved Missouri immense sums, showed that supervision of school-building projects is the only certain way of getting uniformly good buildings in small towns.

Taxation and Education

The supreme treat of the program of addresses was reserved to Friday morning, when Dr. Harold M. Groves, professor of economics at the University of Wisconsin and tax consultant for various middle-western states, gave the convention an insight into the complexities of the tax problem. The overworked property tax in 1932, in the United States, produced 57 per cent of the total tax income, whereas in Great Britain it brought in only 18½ per cent. The income tax in the same year produced 14 per cent in the United States, and 35 per cent in England. For state and local purposes, the property tax produces annually between 75 and 80 per cent, and for purely local purposes 90 per cent of all tax money. Dr. Groves suggested by facts and arguments the disadvantages and vast failure of the property tax, but urged the necessity for continuing it on a compromise basis which considers individuals and ability to pay quite as much as the mere fact of the tangible existence of property. As substitutes for and additions to the property tax, he discussed the sales and income taxes. The sales tax has grown enormously in the states; it is difficult to administer and quite unfair, because it places the burden where it can least easily be borne. As a compromise for the general

MR. GEORGE F. WOMRATH
The genial host and thoughtful leader of the auxiliary program which proved so valuable to the School-Business Officials.

LIFEGUARD TUBE *brings* New Safety to School Buses



SAFETY! In the operation of school buses it's of prime importance. And here's a new Goodyear development that brings to school buses the "last word" in safety. It's the new Goodyear LifeGuard Tube.

Examine this new tube. See how it will protect your school children—and your buses—by eliminating that sudden collapse of a tire that makes blow-outs so dangerous. With LifeGuard Tubes in the tires of your school buses, blow-outs will be converted into harmless slow leaks allowing your drivers ample time to bring their buses to an easy, safe stop.

In a series of blow-out tests held recently before city and state safety officials in various sections of the country, this new tube was enthusiastically proclaimed the greatest advancement toward safe driving in recent years.

Whether you operate your own school buses or contract for this work to be done, the responsibility is yours. You owe it to your school children to recommend—and get—the protection of this new LifeGuard Tube.

Give them, too, the safety of Goodyear All-Weathers with the non-skid protection of that famous All-Weather tread and the strength and durability of Supertwist cord construction. Ask the Goodyear dealer near you for more information about these products that mean MAXIMUM PROTECTION for your buses and children and which will bring the same safety to your cars and trucks as well, or write to the Government Sales Department, Goodyear, Akron, Ohio, or Los Angeles, California.

RIM
CASING
This is the valve through which both inner and outer tubes are inflated.
Through this small vent in the inner fabric tube air passes to the outer tube until both are equalized.
Outer compartment is a regular heavy duty tube and under ordinary operating sustains the load.
The inner tube is of 2 plies of fabric and floats free under equalized pressure.
If blowout occurs outer tube deflates.
Inner fabric tube permits air to escape slowly so that stop may be made without sudden collapse of tire.

GOODYEAR

LIFEGUARD TUBE

sales tax, the speaker suggested that this be limited to special and particularly luxury articles and be made universal only as a final resort.

The income tax produces only 14 per cent of the total tax in the United States, but it is the fairest tax, because all taxes must come out of income; the income tax is direct, but therefore burdensome, and it has the advantage of being self-liquidating. It contributes in a very limited way to the redistribution of wealth, and may be used to correct the growing evil of unearned income. It is not without disadvantages, particularly in debtors states. In many respects it is a fair-weather tax, has at present too narrow a base, but in spite of all is the soundest way of supplementing the property tax.

As a fourth type of tax, Dr. Groves discussed the federal special sales tax on such articles as cosmetics, liquors, etc. In conclusion, he pointed to the impressive fact that heavier than all the taxes which are paid in money are the national taxes of idleness, pride, folly, and laziness which Franklin discussed more than 150 years ago as the heaviest burden we have to bear.

Association Business

The exchange of information which the association affords in its annual round-tables on accounting, school supplies, and school-building problems was particularly valuable at the Minneapolis meeting. It would seem desirable, however, that the suggestion of Mr. John W. Lewis, of Baltimore, should be followed, and round-table questions and problems can be submitted well in advance of the convention so that experienced school officials can be assigned to prepare replies and discussions.

The annual election resulted in the following selection of officers:

President, Mr. Paul H. Scholz, business manager of the board of education, San Antonio, Tex.

Vice-President, Mr. John S. Mount, auditor of the State Department of Public Instruction, Trenton, N. J.

Secretary, Mr. H. W. Cramblett, secretary of the board of education, Pittsburgh, Pa.

Treasurer, Mr. Albert Austermuhl, secretary of the board of education, Camden, N. J.

The new executive committeemen are Mr. R. W. Hibbert, auditor, board of education, St. Louis, Mo., and Mr. H. C. Robert, secretary and business agent of the board of education, Sioux City, Iowa.

The 1936 convention will go to St. Louis.

The Auxiliary Program

The city of Minneapolis has perhaps the most efficient school-plant administration building of any community in the United States. This vast building, with its complicated and efficient machinery and equipment, is only the visible sign of the ability and efficiency of its supervisory heads who are carrying on under the guidance of Mr. George F. Womrath. Nor are the members of the Minneapolis School-Business Department staff inarticulate. These men, speaking of their work and explaining the principles underlying the policies and techniques of school planning, building maintenance, janitorial service, personnel work, lunchroom management, purchasing, etc., made clear-cut statements that gave evidence of careful thought and an understanding of all the implications of a complete business service for public education. Many cities will not agree with the Minneapolis practice of supplying certain services and materials for the schools, but the fact that Minneapolis carries on with economy and superior efficiency, and with the complete understanding of the community, are facts that were impressed on the visiting school executives. The auxiliary program and the visits to the school-plant administration building constituted more than a convention feature — they formed an impressive and valuable "short course" of technical demonstrations, outlines of procedures, etc. The inclusiveness of the program may be judged from the following list of topics:

General Building Construction, illustrated talk by Mr. B. B. Duemke, construction engineer.

Janitorial-Engineering Service, illustrated talk by Mr. Conrad T. Pykoski, operating mechanical engineer.

Fuel, illustrated talk by Mr. Harry A. Benson, operating mechanical engineer.

Operation of Economical and Efficient Requisition System, demonstrated talk by Mrs. Esther S. Olson, supervisor of purchasing.

Comprehensive Janitor-Engineer Personnel Record System, demonstrated talk by Mr. George G. Hass, timekeeper.

Specialties for Saving Money in the Purchase and Upkeep of Locks, Keys, etc., demonstrated talk by Mr. M. W. Rosenberg, designer and locksmith.

Plumbing, demonstrated talk by Mr. Joseph E. Quigley, plumbing inspector.

Janitorial-Engineering Service, illustrated talk by Mr. Jens Flikeid, supervisor of housekeeping.

Janitorial-Engineering Tools, illustrated talk by Mr. K. P. Grabarkiewicz, assistant principal janitor-engineer training school.

Floors, demonstrative talk by Mr. Leslie C. Helm, principal, janitor-engineer training school.

School Furniture, demonstration talk by Mr. Charles E. Mulvahill, supervisor of educational equipment.

Operation of a Perpetual Inventory Stock Record System, illustrated talk by Mr. Ray V. Barnes, supervisor of stock records.

Care and Maintenance of Schoolhouse Tools, demonstration talk by Mr. Arthur W. Taylor, inspector of vocational facilities.

Slate Blackboards, demonstration talk by Mr. Conrad T. Pykoski.

Painting, illustrated talk by Mr. William A. Speedy, foreman of painters.

Washing Walls, demonstration talk by Mr. Conrad T. Pykoski.

Mixing Paint, demonstration talk by Mr. William A. Speedy.

Window Shades, demonstration talk by Mr. S. L. Rockney.

Building Hardware, demonstration talk by Mr. Edward H. Enger.

Mechanical Equipment, demonstration talk by Mr. Harry A. Benson.

Water, Light, and Power, illustrated talk by Mr. Conrad T. Pykoski.

Plumbing, demonstration talk by Mr. Joseph E. Quigley.

Building Materials Testing, demonstration talk by Mr. Edward H. Enger.

Janitorial-Engineering Service, illustrated talk by Mr. Jens Flikeid.

Lumber, demonstration talk by Mr. B. B. Duemke.

The convention was in point of attendance the largest in the history of the organization. President Ball was an effective presiding officer, who had prepared an able program and carried it through effectively. Mr. George F. Womrath, as official host, performed wonders of thoughtful planning and courteous management. The exhibits included displays of some 45 outstanding manufacturers and were a source of direct help and information.

School Administration in Action

FARGO ADOPTS NEW SALARY SCHEDULE

Last spring, the board of education of Fargo, North Dakota, adopted a salary schedule, giving consideration to three factors: the amount of training, the amount of outside experience, and the amount of experience in Fargo. For a teacher whose training does not exceed two years, the basic salary is $870, with a credit of $15 a year up to a maximum of five years, for experience outside of Fargo, and a credit of $15 a year for experience within the Fargo system, up to a maximum of $1,250.

The teacher with three years of experience, under the schedule begins with a basic salary of $910, receives a credit of $20 a year for experience outside of Fargo up to a maximum of five years, and an additional credit of $20 a year for experience within the Fargo system. The maximum in this case is $1,350.

The teacher with training amounting to four years of college begins with a basic salary of $1,000, receives credit for a maximum of five years outside of the Fargo system at the rate of $25 a year, and $25 a year for experience within the Fargo system, up to a 20-year maximum. Additional credit of $75 is given for the possession of the master of arts degree in the case of high-school teachers.

In the application of the schedule, the board of education has had as its main object to get the entire faculty back to a regular schedule of salaries. It has been the aim of the board to give an increase in salaries of at least 2½ per cent in any case. In some cases, a teacher has received an increase of 2½ per cent or more by being placed in her appropriate rank under the salary schedule. In other cases where this was not the result, an increase of 2½ per cent has been given, irrespective of the salary schedule.

As a result of the application of this salary schedule, the increases have not been uniform. The effort has been not so much to give uniform increases as to re-establish a uniform scale of salaries. Supt. H. H. Kirk has suggested to the teachers that, if an increase given one teacher is not as much as that of some other teacher, it should not be taken as a reflection on the ability of the individual. On the other hand, if the increase is more than that of another teacher, it does not signify unqualified approval of the work of the teacher.

In the preparation of the schedule, the board of education has endeavored to re-establish a salary policy so that it will not be necessary in future years to consider each salary as an individual matter.

A SCHOOL-BOND RECORD

A school system that has from time to time issued serial bonds in various amounts and maturing on different dates must be provided with records that will readily show the time of maturity, the various amounts of the annual interest, and principal payments.

The board of education of Kalamazoo, Michigan, has brought to its service a complete record of its bond transactions, prepared by Secretary H. W. Anderson. Some 27 distinct bond issues beginning January 15, 1904, are included to show the exact status as of July 1, 1935. The total issues aggregate the sum of $4,058,000, on which $2,080,000 has been paid, leaving due the sum of $1,978,000.

In a series of tables, Mr. Anderson presents the history of all bonds and purpose of issue, a schedule of the past and future bond payments, the changes in the financial situation resulting from a refunding program, yearly bond-payment schedule, yearly interest-payment schedule, combined yearly bond- and interest-payment schedule, and the yearly bond-balance history.

A typical table dealing with a single bond issue is as follows:

ISSUE NO. 29: Woodrow Wilson School
Original Issue $160,000.00 - Dated Jan. 15, 1928 - 4½%
Balance July 1, 1935 - $100,000.00

PAYMENTS

Fiscal Year	Annual Interest		Principal
July 15, 1935	$2,250.00		
Jan. 15, 1936	2,250.00	$4,500.00	$10,000.00
July 15, 1936	2,025.00		
Jan. 15, 1937	2,025.00	4,050.00	10,000.00
July 15, 1937	1,800.00		
Jan. 15, 1938	1,800.00	3,600.00	10,000.00
July 15, 1938	1,575.00		
Jan. 15, 1939	1,575.00	3,150.00	10,000.00
July 15, 1939	1,350.00		
Jan. 15, 1940	1,350.00	2,700.00	10,000.00
July 15, 1940	1,125.00		
Jan. 15, 1941	1,125.00	2,250.00	10,000.00
July 15, 1941	900.00		
Jan. 15, 1942	900.00	1,800.00	10,000.00
July 15, 1942	675.00		
Jan. 15, 1943	675.00	1,350.00	10,000.00
July 15, 1943	450.00		
Jan. 15, 1944	450.00	900.00	10,000.00
July 15, 1944	225.00		
Jan. 15, 1945	225.00	450.00	10,000.00
		$24,750.00	$100,000.00

A final series of tables show the present financial picture in its entirety, including the entire list of issues, the total annual payments thereon, and the interest charges. More important than these are a series of tables that indicate the "future" history of these bond issues so that the board of education has a complete picture of the annual interest and annual bond payments, and the total debt services for every year from 1936 to 1956, when the last of the bonds will be paid and the school district will be entirely free from debt.

In commenting on the situation, Mr. Anderson calls attention to the fact that the Kalamazoo school district has for many years maintained the highest credit rating due to its meticulous care in

(Concluded on Page 50)

THE FLOOR FOR SCHOOLS

IF you were to jot down your requirements for the perfect school floor—forgetting nothing that the perfect floor should be—your specifications would probably read something like this:

"The Perfect School Floor would be, first of all, *durable*—for economy is a big item. It shouldn't need refinishing or repairing, for those are expensive processes. It should be quiet. It should be comfortable to walk on and stand on, for comfort is an important factor. It should be colorful enough to be attractive and modern. And it *must* be simple and economical to maintain."

Look for a floor like that and you will find that Armstrong's Linoleum alone answers *every* demand. For complete information, write now for "Public Floors of Enduring Beauty." Address Armstrong Cork Products Co., Building Materials Division, 1212 State St., Lancaster, Pa.

Armstrong's
LINOLEUM
FLOORS

In this library of the Riverside High School, Buffalo, are 7500 sq. yds. of brown Armstrong's Linoleum, making a quiet, durable floor.

Fairview Heights High School Dayton, Ohio

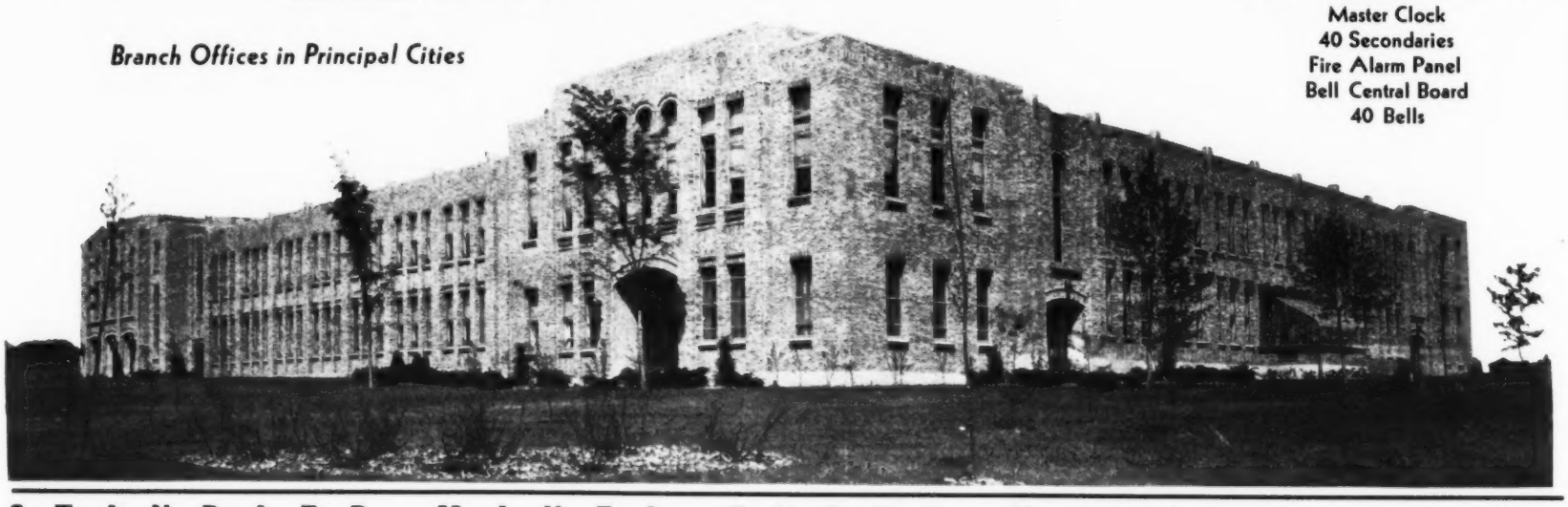
Dayton doesn't do things by halves. When they built their new FAIRVIEW HEIGHTS HIGH SCHOOL, architects Walker & Norwick designed a building both imposing in appearance and exceptionally well arranged for school routine. When the selection of time, communication and alarm equipment was made, the same care was exercised. Naturally "STANDARD" equipment was chosen. Its accuracy—its dependability—its 50 year background of specialization were all in its favor. Those same three factors merit your investigation of "Standard" systems for *your* school buildings. Full information gladly supplied. Address your requests direct.

Standard Equipped, of course

THE STANDARD ELECTRIC TIME CO.
SPRINGFIELD, MASSACHUSETTS

Branch Offices in Principal Cities

STANDARD INSTALLATION
Master Clock
40 Secondaries
Fire Alarm Panel
Bell Central Board
40 Bells



STANDARD MAKES EVERY MINUTE COUNT

(Concluded from Page 48)

handling its affairs on a sound basis. All interest dates have been carefully met and funds for payments on bonds have been anticipated far in advance. A refunding program carried on during the past three years will save the school district a total in interest of $128,826. The final refunding in this program was made on June 15, 1935.

Mr. Anderson's report has been made not merely to record what the board of education has done. Its entire purpose is to anticipate for twenty years the financial program of the school system, and to give the board of education a reliable series of pictures of the situations which must be met in the future.

SCHOOL BUILDING NEWS

♦ Jackson, Mich. The board of education has completed the construction of a boiler room and heating plant as a separate building for the Jackson Technical School. It permits additional shop space within the building and provides for coal and boilers outside of the building.

♦ Pella, Iowa. The board of education has begun the remodeling of the present high school and the building of an addition, the work to be completed at a cost of $80,000.

♦ San Antonio, Tex. The school board has approved plans for the construction of a junior high school, at an estimated cost of $200,000. Application has been made for a PWA loan.

♦ Valparaiso, Ind. A new quarter-mile running track and football field have been provided for the high school. The board obtained WPA funds to assist in financing the construction work, which was completed at a cost of $17,000.

♦ Milwaukee, Wis. The board of education has voted to erect a grade school in Tippecanoe, at a cost of approximately $170,000.

♦ Peoria, Ill. The board of education has received notice of the approval of a federal grant of $288,000 to apply on the construction of a high school, estimated to cost $640,000. A further grant of $123,545 has also been obtained for the construction of a grade school, estimated to cost $274,545.

♦ Cincinnati, Ohio. The board of education has granted permission to the league of women voters to distribute literature in the schools, and to permit pupils to carry literature to their parents urging them to register for the November election. The permission was given in order to insure the passing of the school-bond issue and the school-tax levy.

♦ Frankfort, Ky. The board of education has called for bids for the construction of an elementary-school building, to be erected at a cost of approximately $180,000. The building will be erected as a PWA project, the board having received a grant of $94,050 to be applied toward the cost of the construction.

♦ Dighton, Kans. The voters, at a recent election, approved a bond issue of $110,000, which is to be met by a PWA loan for the construction of a county high-school building. The building will be erected at an estimated cost of $200,000.

♦ Denison, Iowa. The voters of the city, on September 10, approved a school-bond issue of $80,000 to be applied toward the erection of a high school. The balance of $65,000 is to be obtained by a federal grant.

♦ Buffalo, Minn. The voters have approved a school-bond issue of $50,000 for a new school building.

♦ Gibbon, Nebr. The citizens recently approved a bond issue of $25,000 for the construction of a high-school building.

♦ Owensboro, Ky. The board of education has begun plans for the erection of an elementary school, to cost approximately $135,000. A combined auditorium-gymnasium annex will also be erected for the Western Colored Junior-Senior High School. The board has made application for a federal loan to aid in financing these school-building projects.

♦ Cherryvale, Kans. The voters have approved a bond issue of $40,000 to be applied toward the construction of a grade and junior high school to cost $160,000. Application has been made for a PWA loan as part of the construction cost.

♦ McDonald, Pa. The voters recently approved a bond issue of $40,000 to be used for the remodeling of the present high school.

♦ Phillips, Wis. The voters recently approved a proposal, calling for the erection of a school building to cost $100,000. Of the total amount allotted, $45,000 will be received from the Federal Government, and $55,000 will be borrowed from the state trust funds.

♦ Newton, Mass. A system of monthly inspections of school buildings has been begun by the board of education as a means of providing protection from fire. The inspections are made each month by the principal and the custodian of each school, and four times a year these inspectors are accompanied by a member of the city fire department. A report of each monthly and quarterly inspection is filed in the school-board offices.

♦ Dunkirk, Ind. The board of education has made application for a PWA loan to assist in financing the construction of a physical-training addition and the remodeling of the high-school building. The estimated cost of the construction work is $60,000.

♦ Weatherly, Pa. The voters have approved a bond issue of $30,000 to be applied toward the construction of a school, estimated to cost $70,000. The building project will be partly financed by a federal grant.

♦ East Liverpool, Ohio. The state PWA director has approved a project of the school board, calling for the erection of an elementary school in Glenmor. The school will be erected at a cost of $50,000.

♦ Kansas, Ill. The school board has received notice of the approval of a federal grant of $43,363 toward the construction of a high school, estimated to cost $96,363. The local school district will be asked to raise the balance of $53,000.

♦ Chillicothe, Ill. The voters have approved a proposal, calling for a bond issue of $40,000 for a new grade school.

♦ Gaylord, Minn. The voters recently approved a school-bond issue of $120,000 for school-building purposes. A federal grant has been obtained for nearly one half of the cost of construction.

♦ The WPA office of Nashville, Tenn., has approved a program, providing for the erection of four grammar schools in Cookeville.

♦ Barberton, Ohio. Approximately $75,000 in federal funds has been released for county work-relief projects. Construction work has been started on the new high-school stadium and a school painting job in Akron.

♦ Cherryvale, Kans. Plans have been started for a new junior high and grade school.

♦ Charleston, W. Va. Plans have been started for the proposed high school in West Charleston, to be erected at a cost of $600,000. Application has been made for a federal grant to finance part of the cost of construction.

♦ New York, N. Y. The board of education has approved plans for four new school buildings, to be erected at a total cost of $2,500,000. The new schools will be financed with federal funds.

♦ Falconer, N. Y. The PWA has approved the application of the board of education for $62,100 for school-building purposes.

♦ Akron, Ohio. For the second time, the public schools will obtain the major share of PWA funds given Summit County. The building projects include twoscore projects, to be completed with the aid of $60.000 in federal funds.

♦ Douglasville, Ga. The voters recently approved a bond issue of $55,000 for a high-school building.

FLOOR PLANS

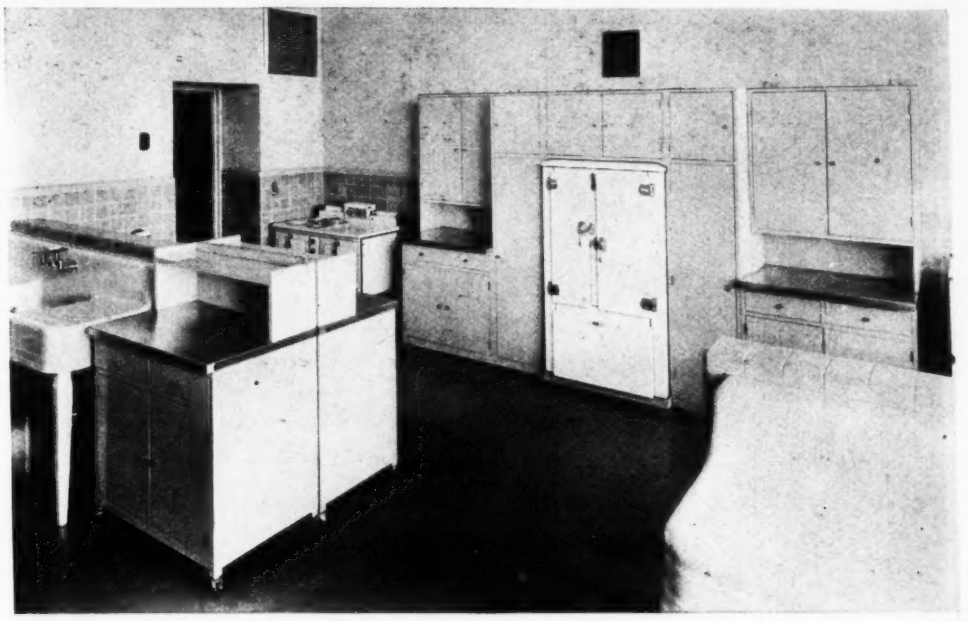
for

Kewaunee

Unit Kitchen Furniture

will be sent to any school equipment buyer on request

Get full details at once on this newest Domestic Science Equipment. It is Beautiful, Harmonized Metal Furniture that more nearly duplicates furniture used in Modern Homes.



Unit Kitchen Arrangement Malverne High School, Malverne, L. I., N. Y.

Without obligation to you, we will gladly mail our new Kewaunee Book of Unit Kitchen Furniture for your inspection. Simply write us a letter and the book will be sent to you, without charge.

This book brings you complete information on the very latest and most efficient type of Domestic Science Kitchen Furniture available. It shows floor plans, construction features, pictures of actual installations and accurate photos of many individual units and complete assemblies.

Built Especially for Schools

Kewaunee Unit Kitchen Furniture is especially constructed for use in schools and colleges. It is sturdy, beautiful, modern and brings to the classroom kitchen equipment that more nearly duplicates the kitchen furniture of the modern home, rather than institutional domestic science equipment. It makes more pleasant and more efficient the hours given to the preparation of food.

Kewaunee Unit Kitchen Furniture has been designed with the cooperation of and approved by several of the leading State Supervisors of Home Economics. This cooperation, backed by Kewaunee's 28 years of experience in designing and constructing equipment to meet the needs of schools and colleges assures you that Kewaunee Unit Kitchen Furniture is built to withstand the demands made upon its ruggedness.

Write for your copy of the Kewaunee Book of Unit Kitchen Furniture today.

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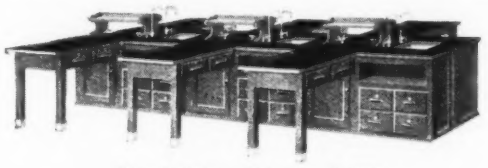
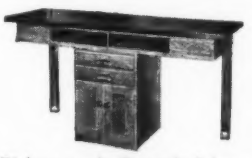


Lincoln Science Desk No. D-503



Biology and General Science Table No. BL-30

Library Charging Desk No. BL-115

Instructor's Desk No. BL-33

Achievements *of a* Board *of* Education

A statement of achievements, made by the board of education of Rockford, Ill., assumes special interest because of the manner of its presentation to the public. The things accomplished by the schools in the past twelve years are presented in nutshell form as follows:

1. During the past twelve years, the board of education has been organized under four different administrations in the city hall. The personnel during this time included five different board presidents and fifty different board members.

2. Facts and advantages of our present board-of-education organization were presented to the electorate in the two general elections when the questions of operating our school system under the general school code with an elective board of education was an issue on the ballot.

3. A new set of rules and regulations for the board of education was drafted and adopted on May 28, 1928.

4. A definite educational policy was developed which approves the theory that public education rests upon the will of the people and that our social organization is dynamic, not static. Education in Rockford is no longer considered as something fixed and permanent.

5. Favorable action was secured on a referendum vote which increased the taxing limit for school purposes from $1.37½ to $2 on each $100 valuation. This increased the amount of tax money available for school purposes each year by a little over half a million dollars if the valuation had remained the same. The fact is, the valuation has been so reduced that the new rate on present valuation does not yield as much school money as the old rate did on the old valuation.

1923 valuation, $86,755,408.00 at $1.37½, yielded $1,188,549.09.

1934 valuation, $53,507,914.00 at $2.00, yielded $1,070,158.28.

6. During the past twelve years, the board of education has retired $1,107,500.00 of its bonded indebtedness, which reduces the bonded indebtedness of the school district to $1,030,000.00. During this time there has been no refunding of bonds.

7. School costs were reduced to meet a reduced budget each year. The per capita cost for the school system has been reduced from $109.90 to $82.85, a reduction of $27.15 or 25 per cent.

8. Class size was increased due to a decreasing budget, from 19 to 30 pupils per teacher, or 58 per cent in the high school, and from 26 to 35 pupils per teacher, or 35 per cent in the elementary schools. The quality of the schoolwork was not impaired by this increase in class size.

9. The whole transaction of selling and paying of over $600,000 of tax-anticipation warrants each year has been taken over by the board-of-education office during the past three years. This was initiated when the banks could not handle the school warrants. As a result, our warrant business is distributed to over a thousand purchasers, in denominations of from $50 to $5,000.

10. Teachers and school employees during the time of the depression were always paid in cash and were never asked to take teachers' orders or school warrants for their salaries. There were times when the paydays were in arrears, but the co-operation of the teachers and school employees kept teacher orders and school warrants off the market where they might have been discounted.

11. A complete inside school-building survey was developed. This survey provides for a school-building program for the next twenty years, makes definite provisions for the location of new sites, and provides for the development of some of the present buildings and the gradual abandonment of others.

12. The school system was changed from the eight-four plan to the six-three-three plan. Reorganization was effected in personnel, curriculum, supervisory, and administrative functions, and the housing of all the children. The pupils are housed now in one senior high school centrally located, two junior high schools on either side of the river, and twenty elementary schools.

13. Two junior high schools, with capacities of 1,500 and 2,000, two 12-room elementary-school buildings, and one elementary-school gymnasium were constructed. The building development represents an expenditure of about three million dollars, and covered Roosevelt and Lincoln junior high schools, Hallstrom and Welsh elementary schools, and a gymnasium to Ellis Elementary School.

14. A high-school athletic field was purchased and a concrete stadium and field house were constructed, representing an investment of about $60,000. The athletic field is a 15-acre tract of land located within the city limits, and provides for baseball, track, and football.

15. Two elementary-school sites of about six acres each, and two senior-high-school sites of about 15 acres each, were located and purchased.

16. Blake and Haskell school buildings were abandoned for school purposes, and the Freeman School remodeled as a center for housing special groups.

17. The school cafeterias were placed under the control of the board of education. They were previously managed and operated by the Rockford Woman's Club. At present the three high-school cafeterias are under one management and have not presented a deficit for the board of education to pay.

18. Eighteen kindergarten rooms in the various elementary-school buildings were organized and equipped. Due to restricted finances the kindergartens were discontinued in September, 1933.

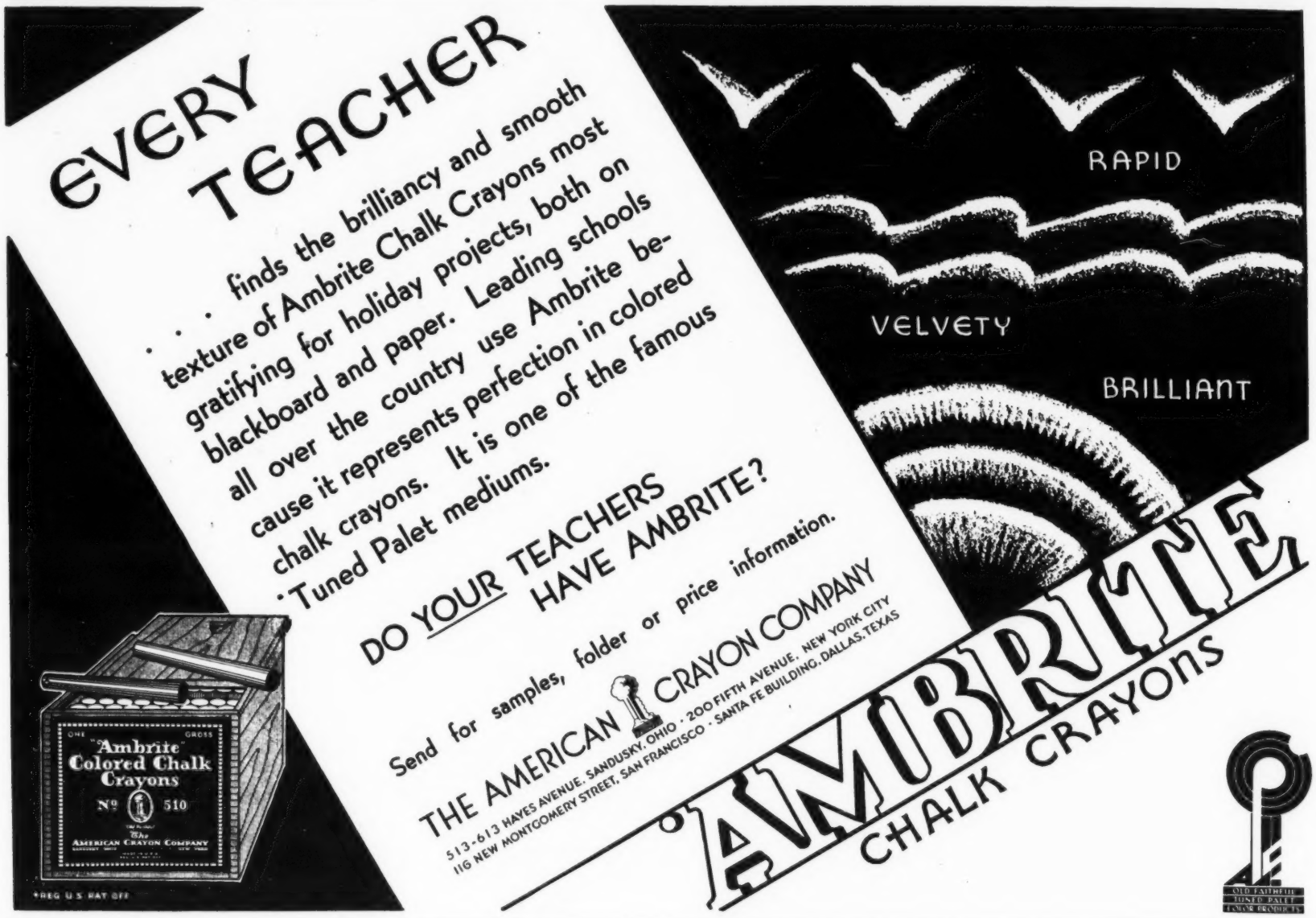
19. Two rooms for crippled children, two for deaf children, and two for children with defective vision were organized. These rooms are housed in specially equipped rooms in the Freeman School and presided over by the teachers trained for the work.

20. The board-of-education office was reorganized, resulting in a reduction of clerks and stenographers from eight to five, and increased efficiency of the work. Now there is no overlapping or duplication of work and each one has a definite function to perform.

21. A single-salary schedule for teachers, supervisors, and principals was worked out and placed in operation. It provides the instructional staff of city schools with a salary equal to that paid teachers in other cities of Rockford's class. This schedule was put into operation during 1930, and carries a liberal sick allowance with pay, which is accumulative for five years. This salary schedule provides permanent increases for teachers attending summer sessions and for travel. It also provides for compulsory retirement from service at the age of 67 years. The principle of this salary schedule has been kept intact during this period of depression by a graduated cut, ranging from 11 to 30 per cent. For the school year 1935–36, the salary schedule is in operation with a 10 per cent cut.

22. The qualifications of teachers has been increased from an average of approximately 90 semester hours or the equivalent of three years' training to 120 semester hours or the equivalent of four years' training, and no teachers have been employed in the elementary schools with less than two years' training above graduation from high school, and in the secondary school with less than four years' training above high-school graduation.

23. Lady teachers who marry are asked to retire from teaching at the end of the semester in which they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are married. If they marry during the summer vacation, they are not expected to begin in September.

24. Administrative and supervisory staffs of the school system were reorganized by placing the supervisory and administrative authority of each school with the principal. The principals have at their disposal a supervisory staff in an advisory capacity. Supervising principals in elementary schools have charge of two buildings when the combined number of teachers is less than 30. This has cut the cost of elementary-school principalships about 50 per cent.

25. During this time the courses of study in the elementary and secondary schools have been in the process of constant revision, to meet the needs of the pupils who are to express themselves in a changing society. New subjects have been added, while old ones have been discarded or reorganized. Courses of study developed in the Rockford schools are sought by other schools. The scheme of vertical supervision is largely responsible for this phase of our schoolwork.

26. A scheme of continuous census has replaced the old annual census taking by census workers or the closing of the schools one day for the teachers to take the census.

HOMEWORK ELIMINATED

Homework has been eliminated from the high school at Brookline, Mass., under a plan inaugurated through the initiative of Supt. Ernest R. Caverly. The experiment which has been under consideration since June, involves a reduction of the daily periods in the high school from six periods of about 45 minutes each to four of about 90 minutes each. In recommending the new program, Mr. Caverly submitted the following statement to the school committee:

"Homework has been fairly regarded as a necessary evil. It is an evil from the point of view of the pupil because it forces him to spend several hours of the bright afternoon, or what should be a restful evening, in laboring over his studies under unfavorable conditions, and without the possibility of securing adequate assistance in case of need. It is an evil from the point of view of teachers because work done in the evening hours under unfavorable conditions is, in many cases, poorly done. But homework is necessary, or at least it has been felt to be necessary, because a day which contains only four hours and ten minutes of class time is too short to accomplish an adequate study program, and particularly because of the expensive and exacting requirements existing for those pupils who hope to enter college.

"In the minds of many, too much attention has been given to the necessity of homework and too little attention to its evils. No adult who has been employed all day in shop or office would willingly take to his home an almost equal amount of shop or office work to be performed in the evening, nor could he perform such work well in those hours at the end of the day when his energies have been depleted and his physical and mental resources are at a minimum. Hard work is a necessity for a happy and successful existence, but rest and recreation are equally necessary and should be equally possible.

"Believing that many parents would welcome an opportunity to eliminate these sweatshop methods in education as far as their own children are concerned, the school committee proposes to make it possible for high-school pupils, whose parents make the request, to do all necessary studying during the school session. Accordingly, there will be organized in the school year 1935–36, in any year and curriculum where a sufficient number of applications is received, classes in which all the required work will be completed in school. Instead of the customary 40- to 50-minute recitation period, there will be a period approximately one and one-half hours long for each of four subjects. Not more than 30 to 45 minutes will be used for the teacher's explanation, recitation, blackboard demonstration, and short tests, and the remaining 45 to 60 minutes will be used for independent study (now called homework) under the guidance of the teacher. Whereas under the 'homework system' emphasis is placed upon accomplishing a set amount of work, under the 'independent study in school system' emphasis will be placed on accomplishing as much work and as fine a quality of work as the assigned time will allow.

"Such an arrangement of classes will permit pupils to be dismissed at approximately three o'clock, which will leave at least two hours in the afternoon for recreational purposes, and the entire evening without any school requirements whatever. It is expected that the hours after three o'clock each day will be genuinely leisure time, and that pupils will find opportunities for sports, music lessons, pleasurable reading, helpfulness about the home, or even for a small amount of remunerative work. It is believed that those who do all their studying in school will do at least as much work and a distinctly better quality of work than those who continue under the present method. A pupil who elects the study in school plan, with his parents' written approval, will ordinarily be expected to use this plan throughout the school year, but he may return to the homework plan at the beginning of any school year if he so desires."

A TEXTBOOK RENTAL EXPERIMENT

At Marseilles, Illinois, the school authorities have experimentally introduced the school textbook rental system. Mr. H. B. Linton, a member of the board of education, who has taken a special interest in the subject devised the plan.

The rental fee is primarily based upon one third of the cost of the book. This is predicated upon the belief that the life of the average book is three years. It may last through a fourth year, but that is a conjecture.

A master record is kept in the superintendent's office in which invoices are posted and a record made of payments to the publishing companies. A record is also made of the number of books turned over to teachers and of the money turned in by them. A separate fund is maintained to cover the purchase of books, and the master record contains a complete detail of transactions so that there need be no question as to whether or not any of the book money is being diverted to other uses.

Each teacher has a small record book in which she lists the number of the rented book, and the pupil's names, together with amounts received for rentals, also notations as to the condition of the books when put out and when turned in. Each book is given a number which is placed on a slip. This slip is pasted in the book, and bears the pupil's name. The teacher collects the rental fee and does not turn the book over to the pupil until the fee is paid. After collections have been made, the teacher turns the money in to the superintendent's office, where it is credited to her account in the master record.

Mr. Linton had devised a series of blanks (*a*) announcing the rental plan, (*b*) application by parent, (*c*) acceptance and return to teacher with required rental fee.

The statement is frankly made by Mr. Linton that while certain advantages may accrue, he cannot promise definite economies. He merely hopes that the experiment will prove successful.

ROCK ISLAND PASSES BOND ISSUE

The voters of Rock Island, Ill., on September 14, approved a school-bond proposition, calling for a bond issue of $500,000 to match a 45 per cent grant of the PWA for a high-school building. At the same time, the voters approved a tax increase of 45 cents in the educational fund, raising the educational levy from $1.50 to $1.95 per each $100 of assessed valuation. The school board has appointed Benjamin A. Horn, Rock Island, as architect for the high school, and William B. Ittner, St. Louis, Mo., as consulting architect.

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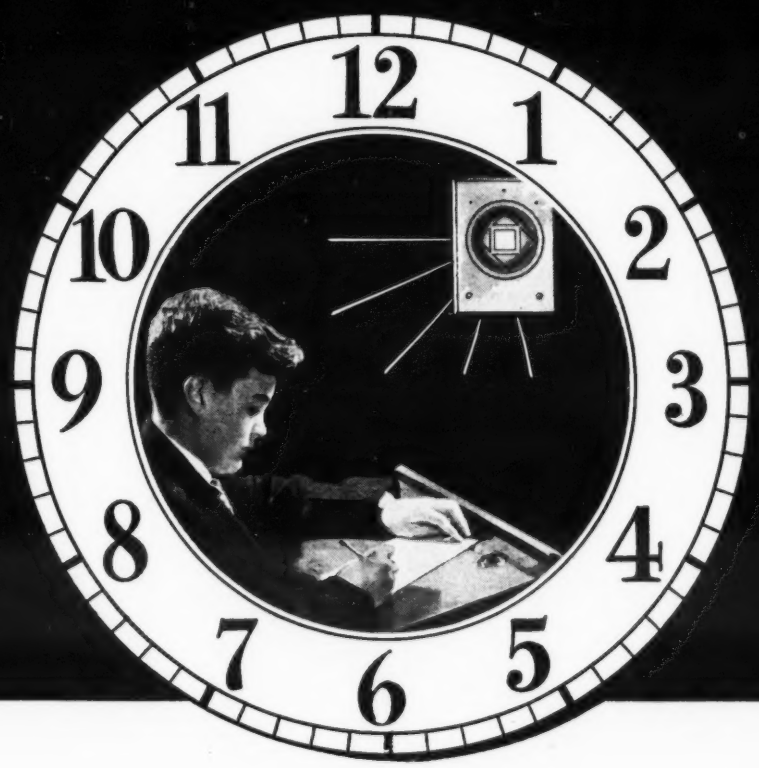

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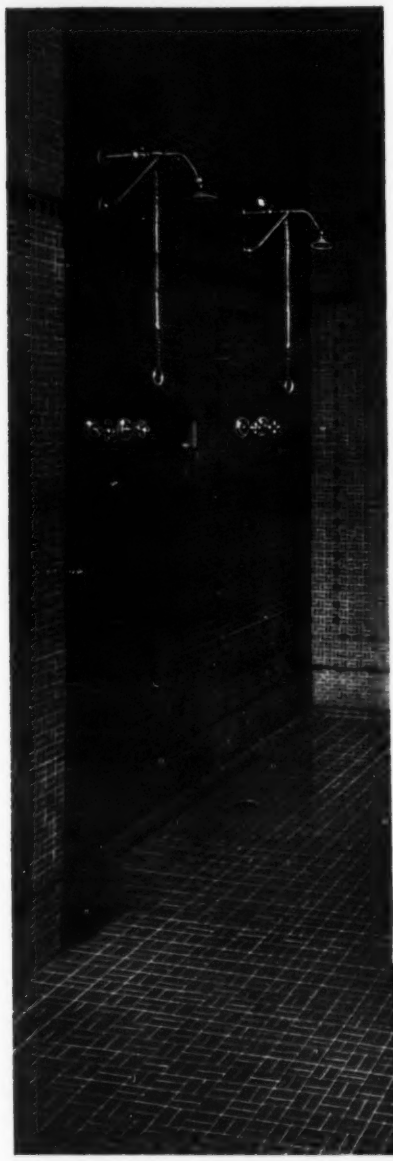

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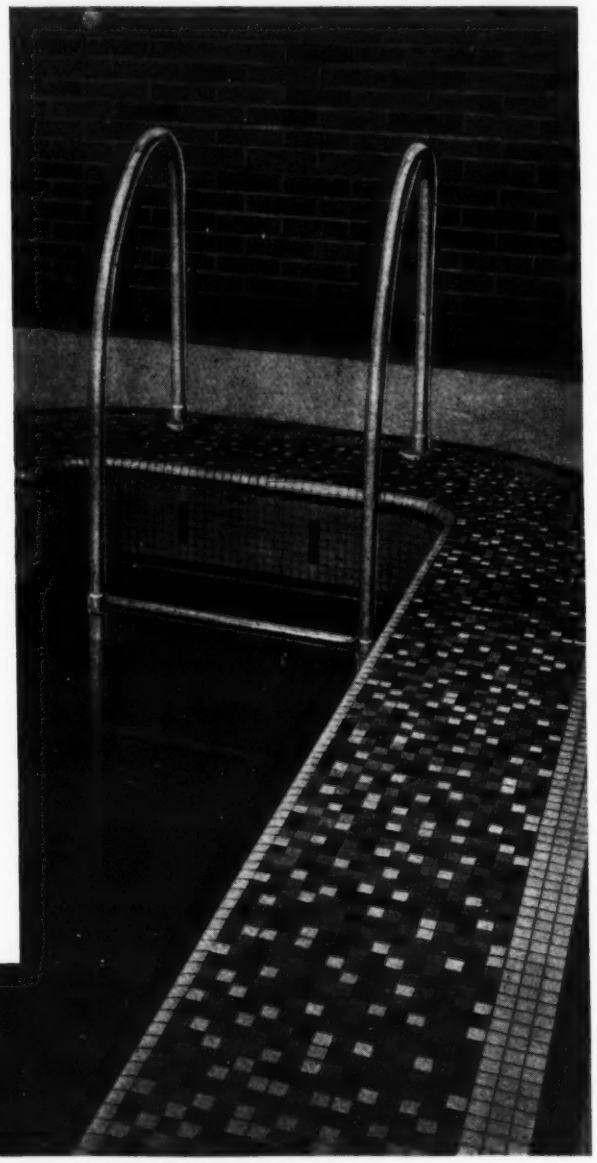

DUTIES OF VISITING TEACHER

The school board of Lowell, Mass., has elaborated the program for the position of teacher-visitor and has prescribed the duties to be performed by the appointee. The duties as outlined, are as follows:

1. Interview parents in regard to the children's personal history, habits, temperament and interests.
2. Analyze the child's social environment — home and neighborhood.
3. Confer with parents to enlist their co-operation when the child shows signs of falling below the schools standards of scholarship, conduct, etc.
4. Try to adjust home conditions, whereby more favorable conditions will be attained in regard to schoolwork, conduct, attendance and interests.
5. Secure the family history, the personal history of the child. and the social data of the psychologist when mental deficiency is suspected.
6. Aid in securing better school adjustment for misfits.
7. Secure the psychological examination of children suspected of mental deficiency.
8. In very difficult problem cases secure an expert psychiatric examination with the approval of the psychologist.
9. Bring to the principal and the teacher all data that will make for a better understanding of the child.
10. Secure personal and social data for the principal and teachers which can be utilized in making educational procedure more effective.
11. Advise parents of the community agencies which will aid them in present difficulties.
12. Refer to and secure the co-operation of relief agencies when the family is in need of help.
13. Secure the services of visiting nurses or the hospital when illness is found in the family.
14. Report cases of suspected contagious diseases to the nurse or health authorities.
15. Aid the nurse in persuading parents to provide for medical or surgical treatment, including glasses.
16. Take or have taken to a special clinic in case of difficult physical defects if the outside duties of the nurse prohibit her from doing so.
17. Aid in securing scholarships for promising children who should remain in school.
18. Refer working mothers with small children to nurseries when necessary.
19. Aid families in need of work to secure employment through legitimate agencies.
20. Endeavor to find out the causes of unusual misconduct and endeavor to remedy conditions.
21. Confer with parents in regard to misconduct and endeavor to change the child's interests or help him to drop bad associates.
22. Secure the co-operation of recreational agencies, libraries, big brothers and big sisters in the prevention of possible delinquency.
23. In extreme cases refer misconduct to the proper authorities.
24. Co-operate in every way possible with the probation officer of the juvenile court.
25. Refer cases of improper guardianship to child welfare agencies.
26. Report immoral neighborhood influences to a proper organization.
27. Investigate the home conditions of children who request working papers.
28. Represent the school in all dealings with special agencies.
29. Investigate the causes of intermittent attendance.

SOLVING A PROBLEM IN GEOMETRY THROUGH INDIVIDUAL INSTRUCTION

Life outside of school is directed only to a certain degree. When the student leaves school, his success or failure is largely up to him. In school, the teacher has been guiding the student's every action. No two students have the same ability and ambition so their progress in school and later in life will not be the same. To meet this need for recognizing individual differences, an experiment in plane geometry was carried out in the sophomore class of the high school in Tekamah, Nebr., under the direction of Mr. J. P. Weisensee, superintendent of schools.

Under the plan, the students were kept together for the first two weeks of school. During this time they were given a thorough introduction to the subject. Something of its history and practical use was explained, general terms were defined, and an interest and desire to learn more was created in the student. At the end of the two-week period, the experiment was explained to the pupils. They were told that modern schools were endeavoring to meet the individual needs of the pupils, and that many colleges had adopted this method of procedure. The pupils were enthusiastic and anxious to help in the experiment.

The material was divided into eleven units. The first unit took the form of an introduction to geometric figures and demonstrations. The students were placed on their own responsibility and allowed to proceed at their own rate of speed. References in the supplementary text were given for each unit in the workbook, and the student was required to read all of them. A maximum time was given for each unit to be completed. Upon the completion of a unit in the workbook, the student was carefully checked by the teacher. If the workbook and tests were completed satisfactorily, the student was allowed to go on to the next unit. If not, the work had to be done again. No student was permitted to continue until the unit was passed with a grade of 75 or above.

The results of the plan were studied. The class which numbered 60 at the beginning of the year, covered the work thoroughly, because no student was permitted to advance until a unit was successfully completed. A student with more ability was given a chance to complete the work and to take up another subject at any time. The slower student had to be reminded to keep up to schedule. The slow pupil was allowed to take two terms, if necessary, to complete the work. A check was made daily, but the results paid for the added work. There were no failures.

BUS SERVICE ECONOMY IN CONCORD, MASSACHUSETTS

A substantial saving in school costs and improved efficiency have been effected in Concord, Mass., as a result of the opening of a new bus service. Beginning with September, all pupils, including both high and elementary pupils, who live more than one mile from the respective schools, were transported in school busses each morning and evening.

The school authorities have established six bus routes, which have been numbered for identification, and located for safety from road dangers. The busses stop only at the designated places, making possible efficient and rapid service. A "leaving time," similar to the stations on a railroad, will be established.

Under the new system of bus control, approximately 40 per cent more pupils are being transported, at a total yearly cost of $7,600. Formerly, only grade children were transported, at a yearly cost of $8,700. The system is being administered under the direction of Mr. W. A. Hall, Superintendent of Schools.

N.E.A. TO MEET IN PORTLAND

The 1936 convention of the National Education Association will be held June 28 to July 2, in Portland, Oregon.

This is the first time that the convention has met in the Far West in some years, and teachers of the country will welcome the opportunity to attend a meeting of the Association in this beautiful western city.

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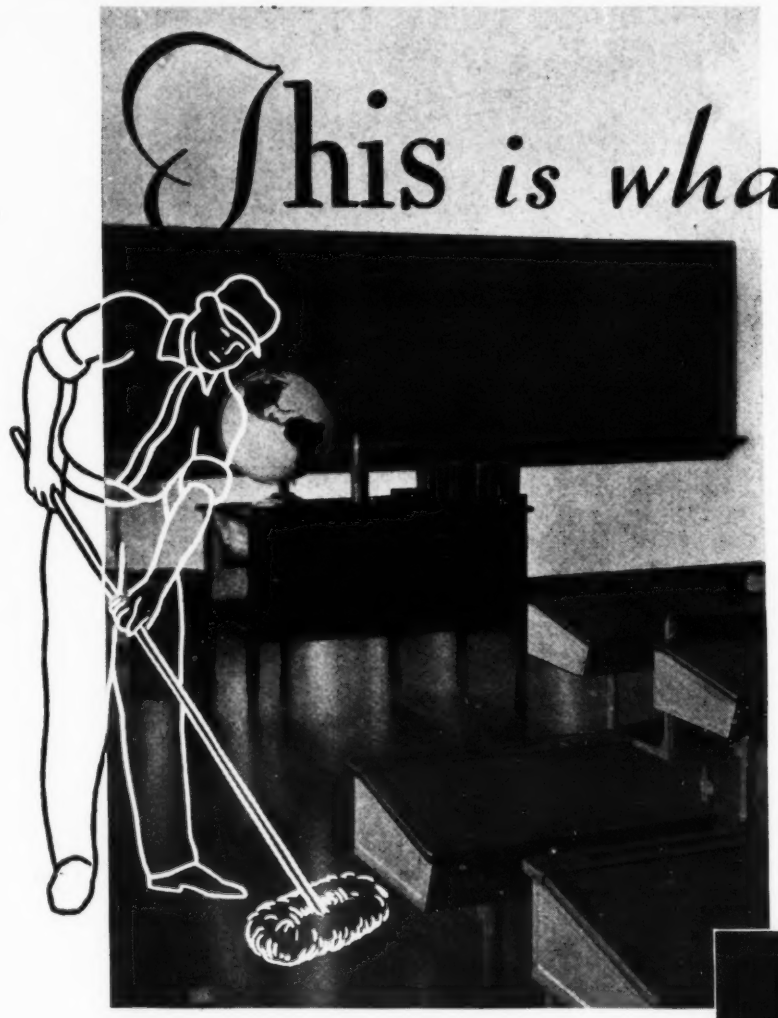

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School Administration Notes

♦ Lynn, Mass. Faced by a conflict between the state law and the local truancy regulations over the rule requiring a salute to the flag, William F. Pashby, principal of the Breed School, has prepared a special report, placing the cause of Carleton B. Nichols, an 8-year-old pupil again before the school board. The boy, a pupil in the third grade, had refused to salute the flag. The salute is mandatory and teachers are subject to a fine if their pupils fail to go through the ceremony at least once each week. The boy cannot be expelled because of the truancy law.

♦ Milwaukee, Wis. Past, present, and future trends of the entire Milwaukee area are to be analyzed in words, graphs, pictures, and clay as part of a widespread survey to be undertaken by the municipal land commission as a combined WPA and NYA project. Young people of the National Youth Administration will be assigned to such tasks as the compilation of plans on zoning, parks, playgrounds, schools, and social centers; an analysis of the population; a study of types of housing; a study of the history and growth of public and private education; and a survey of transportation.

♦ Six hundred and thirty pupils in the public, private, and parochial schools of Indianapolis are entitled to receive a maximum of six dollars a month to enable them to continue their education, under the provisions of the National Youth Administration.

♦ Indianapolis, Ind. The increase in enrollment in the high schools this year over last year's enrollment is equal to the total enrollment of three good-sized high schools in a number of Indiana cities. The total increase over a year ago is 1,232, or a net gain of approximately 8.2 per cent. Almost seventeen thousand high-school students are now enrolled in the Indianapolis high schools, which is approximately 10 per cent of the total high-school enrollment of the state.

♦ Northport, N. Y. The board of education has taken steps to meet an immediate need for additional building space to take care of an increase in students in the junior high school. The board has approved a new plan for operating the school on a double-session schedule, which permits the use of classrooms for more pupils over a longer day. The school day is continuous from 8:30 a.m. to 4:30 p.m., without any intermissions. A staff of six teachers has been provided to carry out the program.

♦ East Chicago, Ind. The public schools will be in session for nine and one-half months this year, making an addition of two weeks over the last school year.

♦ Estherville, Iowa. A new report-card system has been introduced in the public schools this year, under the direction of Supt. F. G. Stith. The new report card furnishes a record of the pupil's progress in developing right social attitudes and social habits, and constitutes an achievement record in school subjects. in place of the old markings, new gradings for this year are S for superior work; B, 90 to 95 per cent; C, 80 to 89 per cent; D, 75 to 79 per cent; and U, unsatisfactory work. In addition, the citizenship gradings will include scores on the items of self-control, dependability, workmanship, courtesy, obedience, thrift, and respect for property.

♦ Niles Center, Ill. The Niles Center High School was reopened in September for its fourth year, with an enrollment of 280 students. The high school, which offers three years of work, began its career in 1931, with an initial enrollment of fifty students. Preparations have been begun to offer four years of work and to permit the establishment of a high-school district. At present, the high school is maintained and operated by the elementary grade-school district, located in the Lincoln Building, Niles Center. Mr. R. E. Cotanche, superintendent of the grades and principal of the high school, is serving his sixth year in these capacities.

♦ South Bend, Ind. A change in the administrative set-up of the school system has been effected this year, under which the Central High School and Central Junior High School have been combined under one school, with Mr. P. D. Pointer as principal. Mr. Pointer who holds two degrees given by the universities of Wabash and Iowa, has had several years' experience as a principal.

♦ Boulder, Colo. The board of education has approved a revised system of grading and report cards, prepared under the direction of Supt. V. M. Rogers. The new plan calls for the use of satisfactory, unsatisfactory, and improving as the marks to be used on report cards.

♦ A two-year secretarial course for high-school graduates has been developed in the Junior College at Ironwood, Mich. The course is both cultural and vocational in its aims and instruction is offered in shorthand, typewriting, secretarial English, accounting, commercial law, filing, business practice, business machines, and cultural subjects. A variety of the most commonly used mechanical aids is included under the heading of Business Machines. For typewriting, a battery of noiseless machines is used. The course aims to meet the demands for well-trained, mature business office workers who are ready to enter employment at a higher level than the average graduate of the high-school commercial course. It takes cognizance of the present-day tendency for upgrading all employees and for limiting initial employment to those who are somewhat beyond the usual age of high-school graduates.

♦ During the coming school year, a department for deaf and hard-of-hearing children will be organized in the public schools of Holland, Mich.

♦ Grand Rapids, Mich. Under a new plan of supervision, approved by the board of education, five principals will have charge of ten buildings. Each principal has two buildings under his direction.

♦ Hartford, Conn. The public schools opened for the school year 1935–36, for a second year under the consolidation plan. The progress made last year was considerable and will be continued during the present year. The parent-teacher association will continue to enlist the co-operation of parents with the school program. Meetings of the school board will be open to the public, and the superintendent, principals, and supervisors will continue to give information as to the policies and plans and purposes of the school administration in private interviews, public addresses, radio talks, and newspaper announcements.

♦ The educational authorities of New Hampshire have prescribed a course in automobile driving as required work for the high schools of the state. In the beginning, a sample course was prepared and a few schools offered it, but the idea became so popular that it was decided to enlarge the course and place it in the regular curriculum. The course is much more than a routine teaching of the rules of the road. The instruction includes good and safe driving. Modern visual methods are employed. There are motion pictures, diagrams, and posters. Effects of fatigue, poor ventilation, and intoxication are studied. A special study of brake action is included, and practical points are given on how to prevent skidding. The course is concluded with an examination, which, when passed, leaves the student with a feeling of confidence to drive a car. But it does not entitle him to a state operator's license. He still has to take the state tests.

♦ The Louisiana state board of education has tabled a resolution by J. Luther Jordan, of Mansfield, a member of the board, urging the repeal of the acts of the state legislature, divesting the local parish school boards of many of their powers and giving these powers to the state board.

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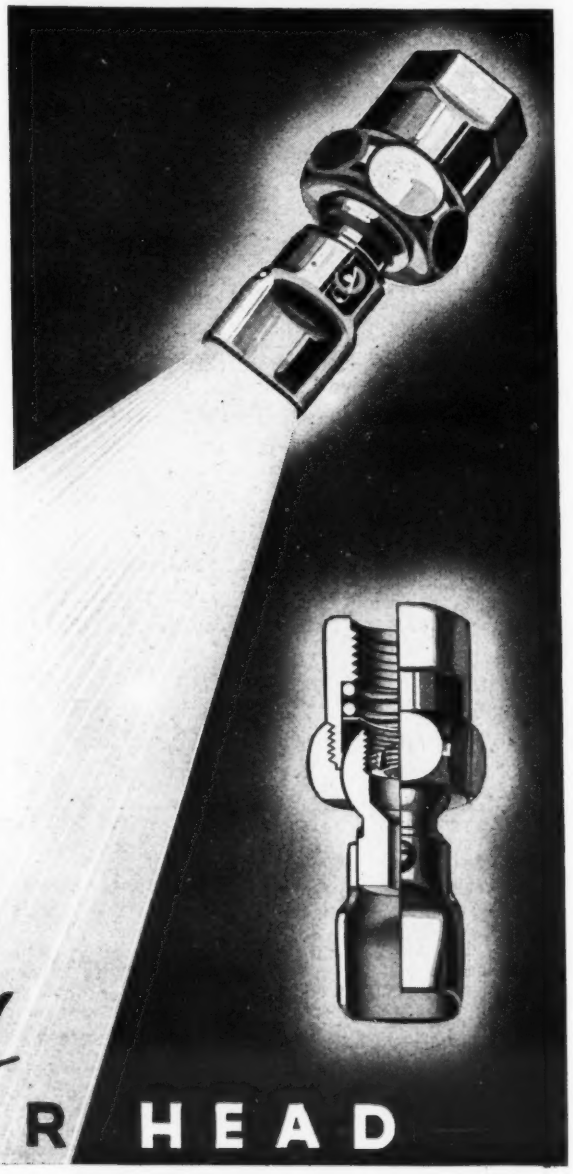

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(Continued from Page 28)

was to the fair-sized woodpile reclining in the corner, and desired to say something of a tactful nature.

"It isn't!" fiercely objected the collector of boys and burdocks.

Mr. Dobson, anxious to make an immediate correction and trying his best to go along under these trying conditions, again shook his head up and down; fearing then that he might have given the wrong sign, he tried shaking it from side to side, the consequent result being a peculiar sort of a rotating arrangement, which was entirely in keeping with the present dizzy situation.

"What happened?" again prompted the exasperated Hamilton.

"Well, with the wish to continue to co-operate with you in every possible way, I thought matters over a while and finally had a concrete idea."

"Bet a dollar it came right out of your own head!" encouraged Bill, who was making a game attempt to straggle back to normal.

"It did," answered the recipient of this ambiguous encomium. "So, this afternoon I suggested to a number of my pupils that we might go on a nature-hike. I got them together, and we went out through the gymnasium and started across the fields toward the woods. I thought it would be a good idea to have them march in line, since they were going along, laughing and talking, and stopping to pick up pebbles and throw them at trees instead of tending to business and listening to me. They put up an awful kick, of course; but I got them lined up in about five minutes, and I walked along in back and everything was fine until we had gone a couple of hundred feet into the woods. And then all the trouble began. You'd never believe it possible, gentlemen, what happened all of a sudden."

"I can't imagine," interrupted Mr. Hamilton, who perceived that Nature's nobleman was showing signs of exploding again.

"Quicker'n you could say 'Jack Robinson,' every last one of those little devils except that Billy Esmay let out a yell and ran in different directions and hid on me!" Waiting a long instant for the realization of this example of depravity to sink in, "Yes, that's just what they did."

There was a gurgle, probably of sympathy, from Mr. Dobson, which changed abruptly to a renewed shaking of his head as he observed the impatient gesture of the listening Hamilton.

"I got after them as quick as I could, you bet you, but it didn't do any good. Every time I'd get up to a place where a boy was hiding, he'd be gone; and then another one would holler out, 'Here I am!' and stick his head around the corner of a tree, and then *he'd* be gone before I could get my hands on him. And it was all muddy, too; and I fell over a stump when I was trying to run one way and look another, and came right down in a brook, and got soaked clear through. I just made up my mind then I didn't care *what* happened to those infernal young ones. Then I looked back, and there was that sassy Billy Esmay standing there, as bold as brass, laughing fit to kill; and I grabbed him and snaked *him* along pretty lively, and I'll guarantee *he'll* remember that trip back as long as he lives, and here I am, and I thought I'd turn this matter over to you, Mr. Hamilton, because I am sure you ought to look into it."

Having again caught his breath after this graphic portrayal of the diabolic depths to which the boys of Monroe high school had sunk since the installation of Hamilton's new doctrines, without a warning Mr. Tyrone suddenly leveled a finger at Mr. Dobson and hissed,

"Do *you* think so?"

Mr. Dobson, whose mind, could it have been adequately depicted at this moment, would have resembled a merry-go-round out of control more than anything else, perceiving that once again he was being singled out, and still uncertain whether or not he was listening to a lunatic, tried to play it safe. Smiling what was intended to be a propitiatory smile, he stammered,

"Why, no! . . . Yes, of *course*, I mean! . . . You've raised a very interesting point." Recognizing from the cold look of his interrogator that something was still left to be said, Mr. Dobson again took refuge in rolling his head around on his shoulders. "Anyway," he cunningly thought, "if this man *is* crazy, at least he'll see I'm agreeing with him *half* the time, and *that's* something."

And so on, and so on . . . Tyrone finally departed, turning in the door to wave a last admonition to Hamilton to look into things, and forgetting in his wrath the half-trimmed war-club. There was a pronounced slam of the outer gate and he was gone.

Mr. Dobson turned feebly to the angry Hamilton.

" 'S a good thing he left that young tree behind, Smith; I was scared he might take it with him and sock me by mistake, while he is a-laying for the boys outside."

Mr. Hamilton, rising to his feet, looked sternly at his friend.

"Bill Dobson," said he, "I've got a darned good notion to sling you right out that window, myself. Do me a favor and *git!* . . . before I lose my own mind."

Mr. Dobson got, with a last glance at the club in the corner, wondering if it might not be safer to take it along as far as the car in case he happened to run across Tyrone, who would have had a chance to rest up for a few minutes and might be waiting around the corner of the building . . . there was Hamilton's unyielding gaze still directed at him . . . had he been able to look through the brick wall that separates the front yard of Monroe high school from the inner office of the superintendent of schools, he would have received the last and possibly greatest shock of this hectic day. . . .

For there, doubled up with laughter in spite of himself, half-sat, half sprawled a very human young man by the name of Smith B. Hamilton, trying his best between gasps to make adequate reply to the question of that competent school secretary, Miss Ross,

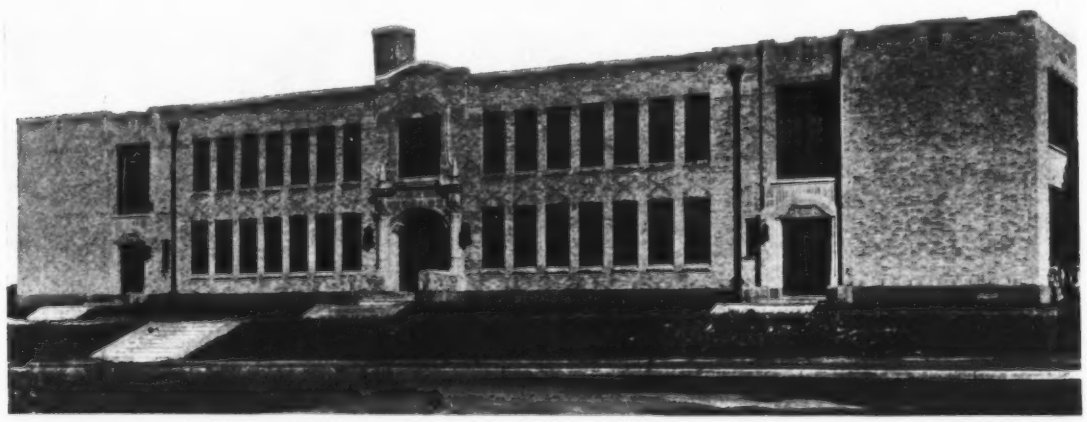
"Will you *kindly* tell me what's going to happen next in this office?"

And so Mr. Dobson, recognizing that he had put in a strenuous, although interesting 24 hours, drove home through the gloaming, serene in mind as soon as he had put a safe five miles between himself and Monroe. To be sure, he regretted that the opportunity for an exposé of Short and the double-crossing Tyrone, as planned during the day, had been snatched away by the sudden appearance of one of these delightful gentlemen. On the other hand, reasoned Mr. Dobson, it'll give me a good excuse for dropping in on Smith B. again. . . .

Two or three hours later on, the boys down at the fire-house listened with renewed indignation and horror to the latest tale of the state of anarchy prevailing at the high school, as related by the injured devotee of the great outdoors, Mr. Jackson R. Tyrone, himself. Their cluck-clucks of sympathy, however, were interrupted by the theatric entrance of Editor Short, who, with great unction read aloud Mr. Mugford's contribution to the good people of Monroe. The remainder of the evening was spent in harmonious executive session, terminated by the remark of several as they sought their hats, "That'll fix 'im!" . . .

At almost the same hour, Mr. Benkert stood on his porch bidding several other school-board members and a determined Mr. Esmay a hesitant good-night. . . . "I hope you are right, gentlemen, in what you've decided to do; I can see a great deal of trouble coming from this drastic move, but I guess it's the only way out. . . . It's time Tyrone was brought to account."

(To be continued)



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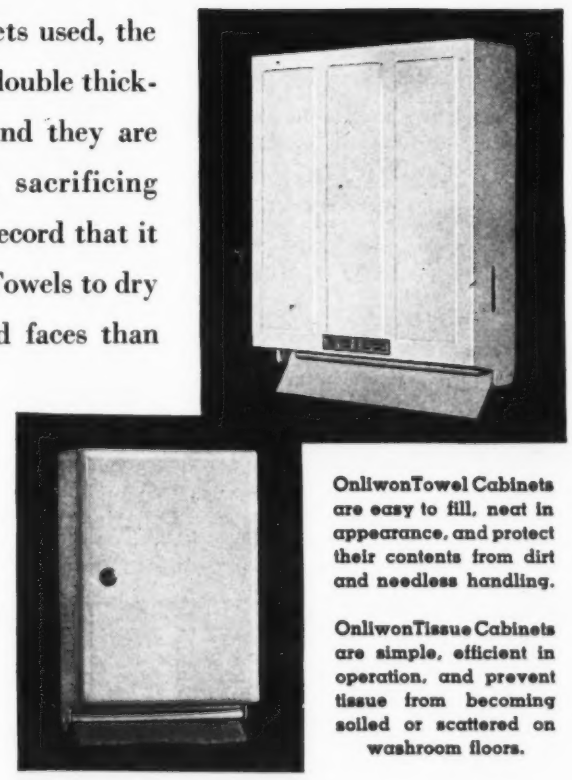

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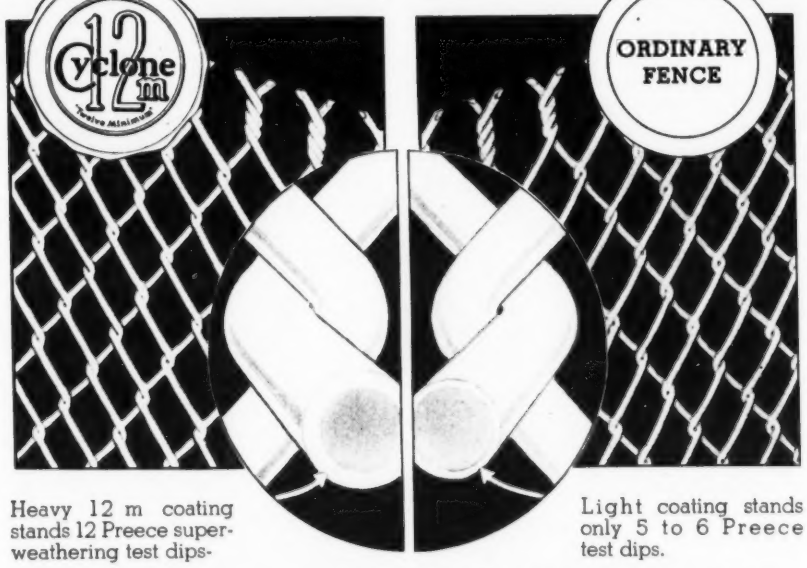

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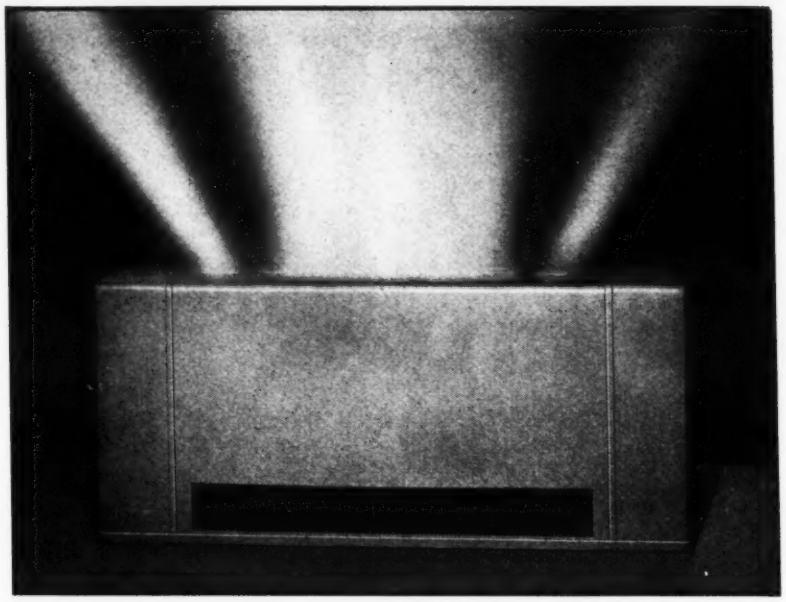

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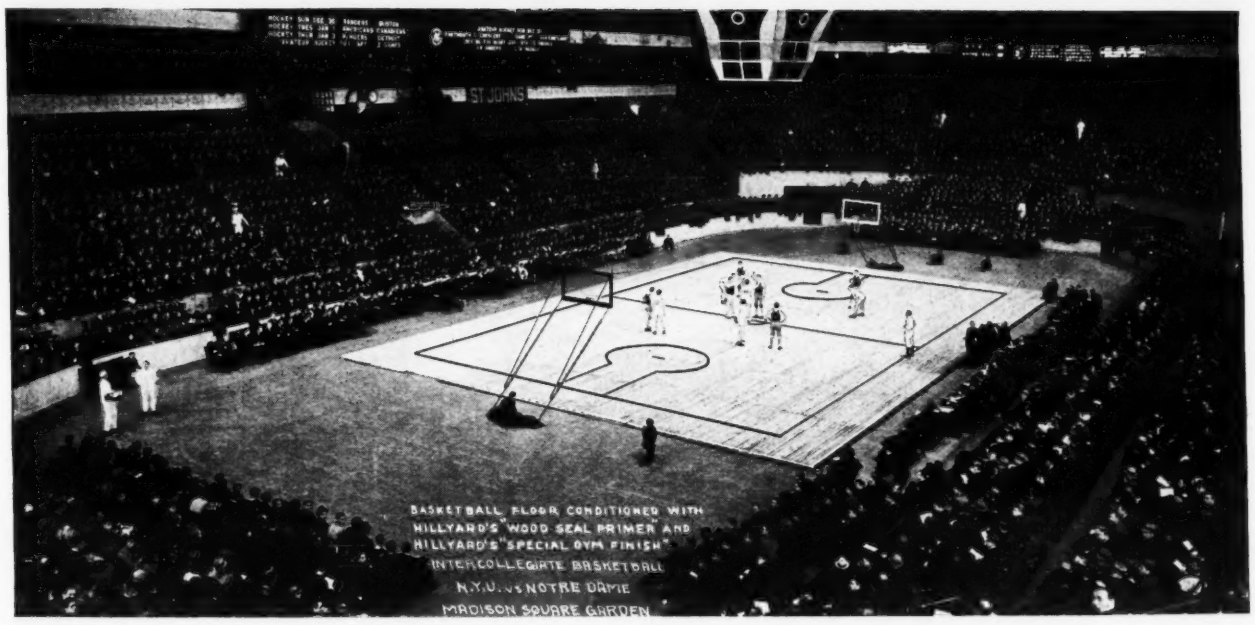

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Recent *School-Law* Decisions

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The North Dakota Supreme Court in the case of *State ex rel. Chamberlain* v. *Johnstone,* has said that a "disabled teacher, entitled to an annuity from the Teacher's Insurance and Retirement Fund of this state, must pay into the fund all statutory assessments, before she is entitled to share in the fund and when, after the disability is suffered, there is an amount due on such assessments, the right to the annuity does not accrue, until such deficiency in assessments is paid, and does not relate to the date of the disability.

"Before she may receive an annuity, she must have paid her assessments. 'Before' means prior, in time, previously to. The term 'before receiving the annuity' means more than the actual reception of the money. It means before being entitled to receive the annuity. It is a prerequisite to a right to share in the fund. The annuity is the right to the status, as well as the payment itself. Before this right to an annuity itself and to the payments thereof matures, she must have completed payment of her assessments. When this is done, the 'right' is created and the annuity begins if she is disabled" (262 N.W. 193, July 23, 1935).

Teacher's Contract Valid

A school teacher's contract which was agreed to at a regular meeting of the board of trustees, but not reduced to writing and executed until after the adjournment, is valid. This is true, even though the stipulated salary is in excess of the revenue for the district for that year.

In an action for damages by Memphis L. Corum against Common School District No. 21, the Idaho Supreme Court, in reviewing the case, said, "It is also contended that the contract was invalid by reason of the fact that it was entered into prior to the annual school meeting, at which a change in the personnel of the board occurred, for services to commence and to be performed after the annual meeting. This contention cannot be upheld. The board of trustees of a common-school district has the power, and it is its duty, to employ certified teachers on written contract in a form approved by the state board of education. . . . The board is a continuous body or entity; the corporation continues unchanged and has the power to contract; its contracts are contracts of the board and not of its individual members; and the board can make a valid contract with a teacher for a term of school to begin in the next succeeding school year and after the term of one of the trustees has expired. . . .

"The further fact that the contract was not reduced to writing and not executed by Foss and Roberts and appellant until a date later than the regular meeting of the board, would not render the contract invalid. The contract being agreed to at a regular meeting of the board, it was not necessary to its validity that it be reduced to writing and executed during the session, but it is sufficient if the contract be entered into at such a session, and reduced to writing and executed after the adjournment of the board. . . .

"It is strenuously contended that the contract is invalid for the reason that when it was entered into the salary to be paid under the contract was not within the income and revenue provided for the year in which the contract was entered into, and that in order to make such a contract valid and binding it was necessary that the assent of two-thirds of the electors of the district be secured to validate it, and in support of this contention the appellant relies upon article 8, section 3, of the Constitution. We have, however, reached the conclusion that the contract involved in this case does not violate article 8, section 3, supra, but that it falls, rather, within the proviso to the said article reciting: 'Provided, that this section shall not be construed to apply to the ordinary and necessary expenses authorized by the general laws of the state.'

"The employment of teachers by trustees of common-school districts is a duty imposed upon them by law, and the cost thereof is an 'ordinary and necessary expense authorized by the general laws of the state,' and therefore exempt from the provisions of this article." (47 Pac. 2nd 889. Rehearing denied August 28, 1935.)

Dismissal of Permanent Teacher Invalid

A resolution of a school board "that the subject of music be discontinued" is beyond the power of the board, since music is a prescribed branch of study and the dismissal of a permanent music teacher based on the discontinuance of a particular kind of service is invalid, when subjects are taught by other teachers.

The first question presented to the California Court of Appeals, in the case of *Jones* v. *Board of Trustees of Culver City School District,* 47 Pac. 2nd. 804, was whether under section 5.710 of the School Code, the respondent could be dismissed. "The section, so far as applicable here, provides that: 'Whenever it becomes necessary to decrease the number of permanent employees in a school district . . . on account of the discontinuance of a particular kind of service in such district, the governing board may dismiss such employee at the close of the school year.' Does this case involve the discontinuance of a particular kind of service? An examination of the various passages of the School Code 'shows that "to teach" is "to serve" and vice versa, and that "services" of the teacher are "teaching" and "teaching" is "service" ' (*Fuller* v. *Berkeley School District,* 40 Pac. 2nd. 831, 833). (American School Board Journal, May, 1935, page 68.) Section 5.710 would seem, therefore, to include the discontinuance of a particular kind of teaching of a particular subject. Thus by a change in the method of teaching or in the particular kind of service in teaching a subject, there is a discontinuance of the former 'particular kind of service.'

"There remains the question as to whether the action of the school board did discontinue the service which respondent had been rendering. The resolution is, 'that the subject of music be discontinued,' and in no part even suggests that it is the object of the resolution to continue the subject of music under other teachers and to discontinue merely the particular service rendered by respondent. Furthermore, since music is one of the prescribed branches of study a resolution to wholly discontinue the teaching thereof was beyond the powers of the board. . . . There is neither a substantial compliance nor any effort at compliance with section 5.710, and the effort toward the dismissal of respondent was invalid and ineffectual." (Hearing denied by Supreme Court, August 26, 1935.)

School Clerk Guilty of Malfeasance

In the case of *State ex rel. Nisbet et al.* v. *Coulter,* the Washington Supreme Court considered five charges brought against the clerk of Consolidated School District 40, and held each sufficient to constitute misfeasance and malfeasance in office. The third, fourth, and fifth charges were, in substance, that (3) Coulter altered the heating system of a certain building so that it was impossible to burn fuels produced in the state, which was contrary to statute; (4) he refused to burn such fuels; (5) he conspired with other directors to discharge certain teachers.

"The facts set out in the third and fourth charges call for a consideration of Chapter 179, p. 692, Laws 1933, . . . Section 1 of the act provides that no fuel

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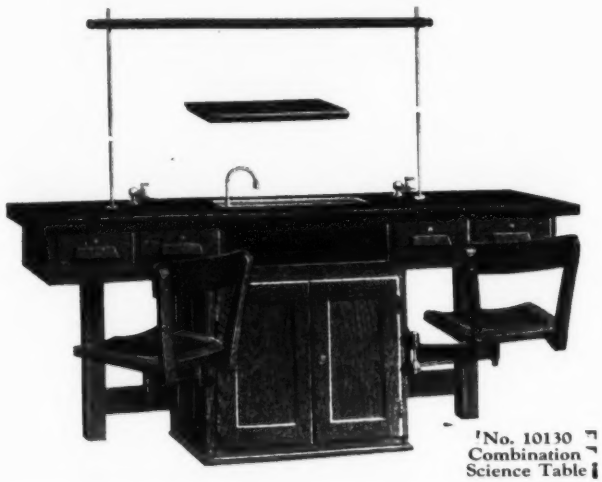

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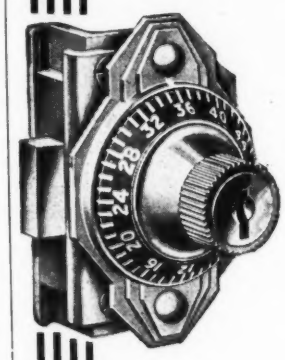

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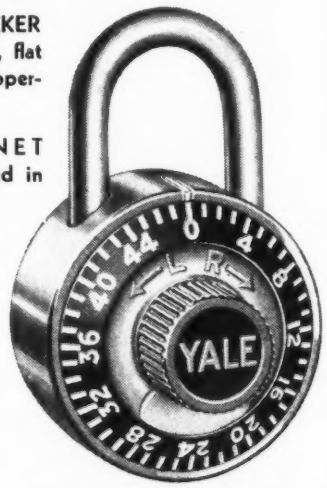

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The third proviso of the enacting clause exempts from compliance all buildings when the cost of heat.ng by using state fuels is over 5 per cent greater than of heating by using out-of-state fuels. The department of business control is given full powers of investigation where the advisability of making changes in equipment is questioned. The statute is mandatory and provides a penalty.

"That the violation, by a public officer, of a penal statute affecting the conduct of his office constitutes malfeasance is not open to debate."

The appellant "is clearly guilty of malfeasance if he remodeled a plant, capable of burning fuel produced or mined in the state, so that it would burn only fuel produced out of the state. . . . Having remodeled the plant so that it would not burn state-produced fuel, appellant cannot escape, under the terms of the proviso, the consequences of violation of the second section of the act.

"The facts set up in the fifth charge are sufficient to constitute misfeasance. . . . 'A people can have no higher public interest, except the preservation of their liberties, than integrity in the administration of their government in all its departments.'" (47 Pac. 2nd. 668. July 5, 1935.)

Teachers May Be Classified

Teachers may be classified for purposes of salary reduction according to their former salaries. An act authorizing a board of education to determine the employees' salaries is constitutional. (*Phelps* v. *State Board of Education, Askam et al.* v. *State Board of Education*. 180 Atlantic 220. New Jersey, July 26, 1935.)

"The act of 1909, relating to tenure, provides, among other things, that no teacher shall be dismissed or subjected to reduction of salary except for certain cases after charges and a trial. That established a legislative status for teachers, but we fail to see that it established a contractual one that the legislature may not modify. . . . The status of tenure teachers, while in one sense perhaps contractual, is in essence dependent on a statute, like that of the incumbent of a statutory office, which the legislature at will may abolish, or whose emoluments it may change. . . . We are clear that the legislature could repeal the act of 1909. If it could repeal it, it can modify it as thought best, and that it did by the act of 1933.

"Secondly, with regard to the claim that there is in the resolution discrimination between individuals in the same class of service because of the varying percentages of reduction based on salary limits. We are unable to perceive any such discrimination. The resolution relating to teachers divides them into six classes according to salary. . . . The higher the salary, the greater the percentage of reduction. But every one in the same class suffers the same per cent reduction. It is true that in some cases where one salary is just over the minimum of the class, another just under the maximum of the next class below, the first is cut to below the second; but that does not create a discrimination between individuals in the same class of service; it is simply an arithmetical result of applying a general formula."

Teacher's Contract

A teacher's contract is not subject to termination during the school year by action of the local board under a retirement statute. This, the New Jersey Supreme Court decided in the case of the board of education of the *Borough of Beach Haven* v. *State Board of Education of New Jersey* (180 Atlantic 430. August 12, 1935).

"Retirement becomes optional — either at the instance of the teacher or the employing board — at age 62. (School Laws.) During the intervening period, neither the teacher nor the board having applied for retirement, the teaching services continue. Mrs. Soper's record was such that she was entitled to a pension either at her or the board's request. But Mrs. Soper's complaint was that the board has agreed not to terminate her teaching for the year without giving 30 days' notice in writing, and that the action of the board in proceeding toward her retirement was a termination of her employment and therefore, in the absence, of a notice, a violation of the contract. . . .

"The disruption in school courses that might follow sudden retirement in midyear, and without notice to the board, of skillful and dependable teachers, from whom a full year's work was expected, is obvious. It is clear that a foreknowledge of the event by the board would be helpful. So, also, the other way around. That the notice should be in writing, and that it should be 30 days in extent, are reasonable provisions."

TEACHERS' SALARIES

♦ Boulder, Colo. The board of education has approved a 10 per cent increase in teachers' salaries for the school year 1935–36.

♦ Joliet, Ill. Two and one-half payless pay days for Joliet township high-school teachers during the 1935 school term have been voted by the board of education. In voting to omit the teachers' pay days, the board followed the same policy as last year. Under the plan, the two-week salary due teachers on November 27 of the first semester was canceled in full, and the April 17 pay day of the second semester was canceled in half. The teachers' contracts carry a flexible clause, which allows for the cancellation through agreement of the instructors to such action.

♦ Stambaugh, Mich. The school board has voted to give the teachers an average increase of 13 per cent in salaries. The increase amounts to about $875 a month.

♦ Camden, N. J. The board of education has approved an appropriation of $39,640, to be used to increase the salaries of 350 teachers, principals, supervisors, and directors. Under the new schedule, teachers in the elementary schools will receive a yearly increase of $100; those in the junior and senior high schools $150; and principals, supervisors, and directors $200.

♦ Greenwich, Conn. The school board has voted to restore 10 per cent of the salary cuts of teachers. The salary restorations have been included in the regular budget for 1935.

♦ Woodbury, N. J. The board of education has adopted a new system of teacher classification and a minimum salary scale under which the school system will operate. The new schedule provides a minimum salary of $1,000 for grade teachers, and $1,200 for high-school instructors. Two classifications A and B have been adopted, to apply only to teachers not under tenure.

♦ Dunkirk, Ind. The board of education has restored the salaries of teachers to the former level.

♦ Rockford, Ill. The board of education has voted to reduce all school salaries to the 1934 level, to effect a saving of approximately $14,000 a month. The action of the board affects all employees of the school system, including janitors, clerical help, teachers, principals, and supervisors.

♦ East Chicago, Ind. Under a recent order of the board of education, all teachers in possession of baccalaureate degrees will receive increases of $20 a month, making their salaries for this year $120 per month. The minimum of $100 is still in force for those teachers having less than four years of training.

♦ Indianapolis, Ind. A partial restoration of teachers' salary cuts, amounting to 5½ per cent of the salary of January, 1932, has been effected by the board of education for the school year 1935–36.

No. 3 of a series of **LOCKEROBE** feature ads

When one pair of hands is better than Forty!

MEDART LOCKEROBES

(Steel Wardrobes for Grade School Classrooms)

Provide perfect teacher control of the wardrobe problem . . . . .

Control of the wardrobe problem among elementary school pupils remains one of teacher's tasks—and can be made quiet, efficient, and a simple routine.

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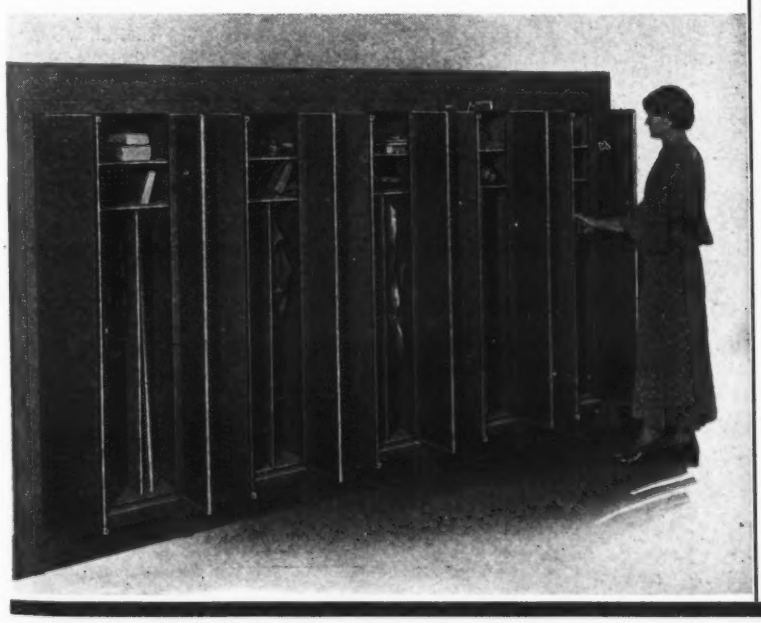
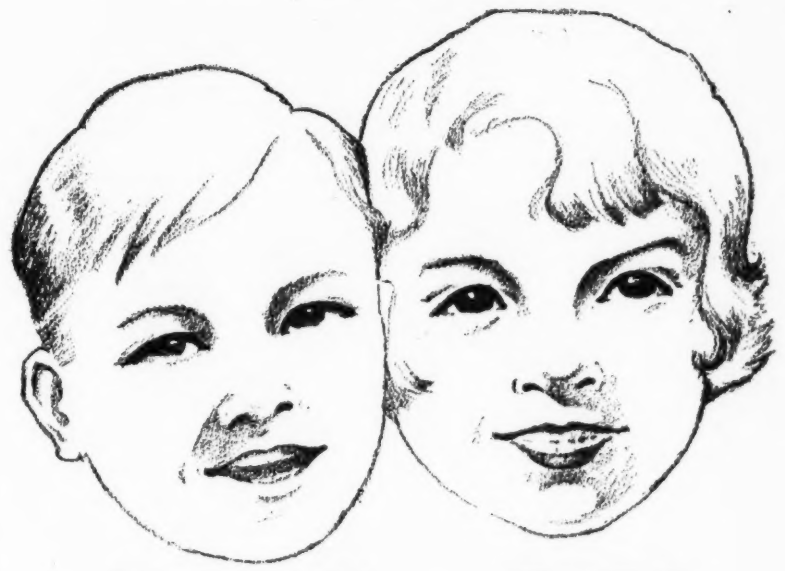


While You Give Them An Education



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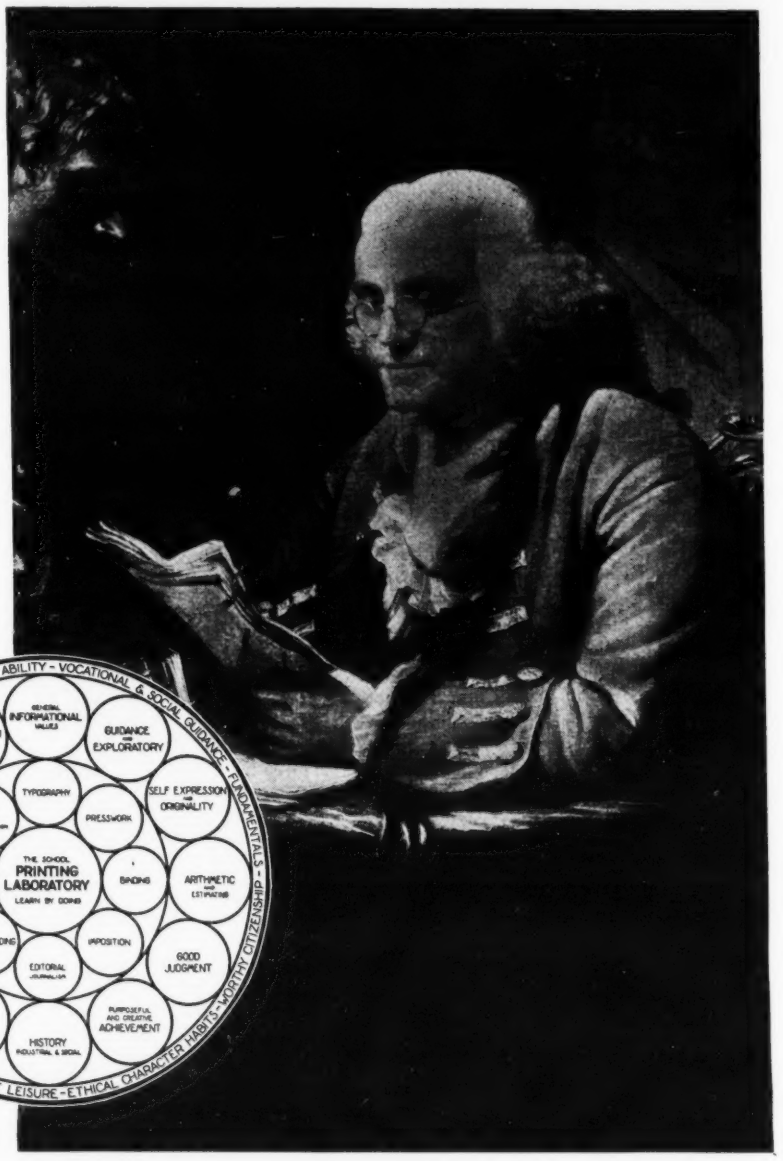

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DEPARTMENT OF EDUCATION

SET IN MEMBERS OF THE BODONI FAMILY

JERSEY CITY, NEW JERSEY

Personal News of School Officials

● Mr. Edward J. Frost has been re-elected as president of the board of education at Jackson, Mich.

● Dr. L. E. Brenz has been re-elected as president of the board of education at Arkansas City, Kans.

● Mr. T. A. Willett, president of the board of education at Portsmouth, Va., has been re-elected for another year.

● The school board of Dunkirk, Ind., has organized with the following officers: President, Mr. C. L. Gaunt; secretary, Mr. Harry McDonald; treasurer, Mr. Brinley Lewis.

● Mr. George Heller, Sr., who died recently at Sheboygan, Wis., had completed 50 years of public service, comprising 29 years of service as school commissioner, and 11 years as superintendent of city schools. His service as school commissioner, superintendent, secretary of the board of education, and later as president of the board placed him in a strategic position to fill and anticipate the needs of public education.

Mr. Heller had a keen and analytic mind, and a sympathetic and kind disposition, which gained respect and confidence for him. His efficient efforts in conjunction with other co-workers laid the foundation for the present sound and efficient school system.

● Mrs. Ruth Rydzy has been appointed a member of the board of school trustees at Michigan City, Ind. Mrs. Rydzy succeeds T. F. Miller, whose term expired in July.

● Mr. Edward R. Stoecklin, a member of the board of education of Highland, Ill., for sixteen years, died at his home on October 4.

● The school board at Moorhead, Minn., has reorganized with the election of Mr. Edgar E. Sharp as president, and Mr. O. D. Hilde as clerk. Mr. F. G. Hill was chosen treasurer.

● Mr. Fred Graycraft has been elected secretary of the school board at Granite City, Ill. He succeeds Homer McKinney.

● Miss Ruth Miller has been elected secretary of the school board at Nevada, Mo.

● Mr. Alfred L. Smith has been elected secretary of the school board at Elkhart, Ind.

● The school board of Nampa, Idaho, has reorganized, with the election of H. E. Meyer as president, and W. H. Keim as vice-president.

● Mr. Charles MacDonald has been elected president of the school board at Tarrytown, N. Y. Eugene Russell was chosen vice-president.

● Dr. A. O. Olmstead has been re-elected president of the board of education at Green Bay, Wis. Mr. Ray Leicht was elected vice-president.

● Mr. Edson V. Root, Sr., has assumed his duties as superintendent of schools at Paw Paw, Mich.

● Mr. Grant Wheeler, 71, a former superintendent of schools at Midvale, Ohio, died at his home in Schoenbrunn, on September 17, following a brief illness.

● Dr. Howard A. Dawson, formerly member of the staff of the United States Office of Education, has been appointed assistant director of the research division of the National Education Association. His especial work will be the study of problems of education in rural areas. He will act also as adviser to the Department of Rural Education. Dr. Dawson is responsible for numerous studies in the field of rural education in Arkansas and other southern states. He served as a special consultant in the national study of school finance.

● Dr. Charles W. Henry, 57, former president of King College, at Bristol, Tenn., died at his home in Maryville, on September 15. He was president of King College from 1931 to 1934.

● Mr. W. O. Johnson, formerly of Wanamingo, Minn., has become superintendent of schools at Medford.

● Mr. Arthur Langehough, of Minnesota Lake, Minn., has become superintendent of schools at Wanamingo, succeeding W. O. Johnson.

● Mr. George Carroll, of Toledo, Iowa, has accepted the principalship of the high school at Cresco, Iowa.

● Mr. John K. Fenner has resigned as superintendent of schools at Cranston, R. I., after completing more than thirty years of service in the schools. Mr. Clarence W. Bosworth, formerly principal of the high school, has been elected to succeed Mr. Fenner.

● Dr. Samuel H. Edmunds, superintendent of schools of Sumter, S. C., for forty years, died at his home on September 15, following a heart attack. Dr. Edmunds was a native of South Carolina, was educated at Davidson College, Columbia University, and Chicago University, and had spent his entire life in educational work.

A NETWORK OF SERVICE

American Junior Red Cross

● Mr. Ira E. Creelman, formerly principal of the high school at Seymour, Conn., has become principal of the high school at Stonington.

● Mr. Henry L. Adams, formerly at Arnold College, has been appointed to succeed Mr. Ira E. Creelman at Seymour, Conn.

● Prof. H. H. Helter, for 22 years superintendent of schools at Mansfield, Ohio, died at his home in Kent, on September 20. Mr. Helter resigned recently as a member of the faculty of Kent University because of ill health.

● Mr. Charles W. Williams, formerly principal of the high school at St. Bernard, Ohio, has become superintendent of schools. He succeeds the late F. M. Reynolds.

● Mr. J. G. Turner has assumed his duties as superintendent of schools at Mt. Vernon, Ind.

● Dr. John L. Tildsley, assistant superintendent of schools of New York City, assigned to the high-school division, has been placed in charge of all Bronx high schools for the supervision of organization, administration, and efficiency of the schools and the services of principals and teachers.

● Mr. John Kipp, of Cannon Falls, Minn., has assumed his duties as superintendent of schools at Randolph.

● Mr. Raymond Collins, of Kearney, Nebr., has become superintendent of schools at Waco.

● Mr. Homer Fossler, of Williamsburg, Iowa, has assumed his duties as superintendent at Martelle.

● Mr. L. T. Sigsted, of Medford, Minn., has become superintendent of schools at Farmington.

● Mr. H. E. Rosemount has become superintendent of schools at Graceland. He succeeds E. W. Cleasby.

● Supt. F. B. McCloy, of Rose City, Mich., has been re-elected as head of the school system.

● Supt. L. H. Ladd, of Pomeroy, Iowa, has been elected president of the Calhoun County Schoolmen's Association.

● Supt. Roy Phillips, of Alma, Mich., has been elected president of the Michigan School Superintendents' Association. Mr. George Gilber, of Gwinn, was named vice-president.

● Supt. M. C. Murray, of Michigan City, Ind., has entered upon his thirty-first year of service in the city schools.

● Mr. Clyde W. Williams has been elected superintendent of schools at St. Bernard, Ohio. He succeeds the late Frank M. Reynolds.

● Mr. E. P. Blackburn, formerly superintendent of schools in Posey County, Ind., has become superintendent of schools at French Lick.

● Mr. Raymond Goldman, formerly of Francisco, Ind., has been appointed superintendent in Posey County, to succeed Mr. Blackburn.

● Dr. Robert H. Morrison has been appointed as principal of the Normal School at Paterson, N. J.

● Mr. Emmet L. Morris, formerly at Marquette, Iowa, has become superintendent of schools at Melrose Park, Ill.

● Mr. Giffin B. Hardy has been elected president of the board of education at Boulder, Colo. The new member of the board is Dr. Charles A. Monroe who succeeds Mr. D. I. Hutchinson.

● Mr. Paul A. Hoffman, a member of the board of education at Stevens Point, Wis., for many years, and its president since 1922, died at his home on October 1, following a year's illness. Mr. Hoffman was elected a member of the board in July, 1921, and had served continuously as a member since his first term. He was re-elected for a two-year term on July 1, 1935.

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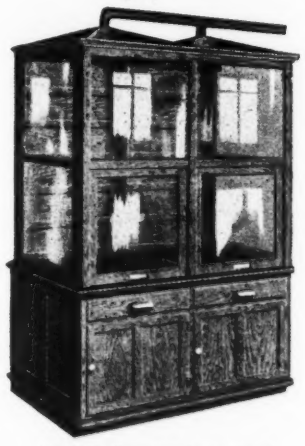

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No. 955 Note Book Case

School Board News

PROPOSE CHANGES IN NEW YORK SCHOOLS

A radical change in school procedure, whereby children will be advanced from grade to grade without necessarily having achieved definite standards of accomplishment, is recommended to Supt. H. G. Campbell and the board of education of New York City, in a report prepared by a committee of school officials after a four-year survey.

The group, known as the committee on articulation and integration, is headed by Dr. Stephen F. Bayne, associate superintendent in charge of the elementary division, and includes fourteen assistant superintendents and principals.

The recommendation to abolish grade standards of accomplishment is accompanied by the corollary that courses be so varied and enriched that pupils of every type of ability be given an opportunity to do schoolwork within their abilities.

The recommendations are intended to virtually do away with nonpromotions and put the school system on a 100 per cent promotion schedule. That the idea was not acceptable to all members of the committee is disclosed in a note showing that the idea has been approved by twelve of the fourteen members of the committee. Of the twelve who voted in the affirmative, two doubted its feasibility.

Not only would grade standards be wiped out under the committee's plan, but advancement from elementary to junior high school and from junior high to senior high school would be made largely on the basis of the time spent in the preceding unit and the age of the child.

"The elementary schools should send on to the junior high schools practically all pupils who have reached the chronological age of 12 or 13," the committee advises. "This presupposes that with a few exceptions they have been kept working up to their individual capacities. . . . The junior high school should transfer to a higher school of the secondary division, all pupils who have pursued the junior-high-school course for the approximate required time."

As part of the scheme the old eight-year elementary school would be discontinued, and the entire school system would be reorganized on a six-three-three plan. "Certificates of attainment" would be awarded to pupils who leave school before qualifying for a diploma.

In the report the committee declares:

"The committee realizes that radical changes will result if its recommendations are adopted. Increased financial aid and continued study and experimentation will be necessary for a complete application of the principles set forth in this report. However, the members are convinced that justification will be found in such desirable outcomes as an educational system composed of several types of units, each properly linked with the other; courses of study properly adjusted; teachers adequately prepared and suitably assigned; an opportunity for each child under this plan to find himself."

Among the principles of articulation and integration enunciated by the committee are the following:

In accordance with the principles of universal and compulsory education, the public school system should provide for the education of all children from the age of 5 to about 17.

There should be a unifying philosophy for the school system as a whole.

City-wide establishment as rapidly as possible of the six-three-three plan.

Each school must be flexible in adapting itself both to the higher and lower schools and to the needs of the community. In this connection the committee urges that the pupil's progress from one type of organization to the next be considered as a transfer rather than a promotion. "Since education is a continuous process, graduation exercises, for example, for pupils leaving 6B schools should be discouraged." the report says.

The curriculum must be flexible, made so by continuous revision and adaptation in each school to meet community and individual needs. For this purpose, the maintenance of a separate staff is urged by the committee.

There should be flexibility in classroom procedure based on the realization that "there is no one best way of teaching and learning."

Adequate equipment should be provided. Experimentation with movable furniture, sound motion pictures, and radio is advised by the committee.

Adequate provision should be made for classes for mentally and physically handicapped children.

A program of continuous diagnostic testing and remedial teaching should be instituted.

An adequate system of records should be kept so that when a pupil progresses to a higher type of school a complete report concerning him will be available.

Close co-operation between the school and the parents.

A sufficiently large and well-trained teaching staff, augmented by clerical assistants, guidance and home-visiting teachers, medical psychiatric and psychological associates and recreational assistants.

A system of in-service training for teachers to insure professional growth for teachers and supervisors.

Ample opportunity should be given to each higher institution to study the records of the incoming group of pupils.

A certificate of attainment should be given to each pupil at the time when he severs his connection with the school system.

The school should be identified with the community, serving as a civic center and making use of all other educational agencies such as libraries and museums.

Experimentation should be encouraged.

The report has been attacked by Associate Supt. John L. Tildsley as endangering the entire program and standards of education in the city. "The most effective education is that which holds pupils from the earliest years on to the actual performance of a task suited to their abilities, but nonperformance of the task should not be accompanied by a moving forward.

"Any school system that doesn't require completion of a task is failing in one of the first requisites of education. We have a sufficiently large number of boys and girls who will not put forth their best efforts if they know in advance that they will be promoted even if they put forth no effort whatsoever."

Dr. Tildsley makes the recommendation that the schools be organized for two or more streams of pupils, one the normal group and the other the slower pupils, who would nevertheless be held to the achievement of standards not as exacting as those for the normal pupils.

SCHOOL-BOARD NEWS

♦ Windsor Locks, Conn. The board of education has been reduced in size from six to five members. The term of membership has been shortened from three to two years.

♦ Muskegon, Mich. The board of education has approved the establishment of an evening school with courses carrying credit in the junior college. The school is conducted on a tuition basis, and classes are held two evenings each week in double periods.

♦ St. Louis, Mo. The school board has voted to prepare new rules for restricting or prohibiting the reinstatement of former school employees. It was pointed out that reinstatement has been sought in increasing volume by teachers and others who had resigned recently or long ago. Under a policy in effect for many years, this reinstatement has been granted, to the disadvantage of recent graduates of the teachers' colleges.

♦ City Attorney Thomas B. Kilbride, of Minneapolis, Minn., in a recent opinion, has ruled that the members of the board of education cannot have a $200-a-month salary for their services, unless the city charter is changed. The present charter provisions do not allow compensation for service on school boards.

♦ Camden, Ark. High-school fraternities and sororities have been prohibited by a ruling of the board of education. Beginning September 5, it was ruled that no student may become a member of any secret society, and after that date no existing society may receive new members.

Instructors Desk No. 1A-100

ADAPTABLE . . .

TO INDIVIDUAL REQUIREMENTS

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Cupboard and drawer spaces are interchangeable, sink and accessory locations may be shifted, equipment added or removed as desired. Our engineering staff will aid you in adapting our instructors' desks to your exact needs.

Instructors' desks, of wood or metal, for University requirements, in all the sciences, are built and installed to specifications.

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Sound Quality

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Large or Small auditoriums 35 mm Standard Film.

The first and only ball bearing projector and sound head built in one unit — no attachments.

See it — Hear it — FREE DEMONSTRATION

Sold to schools on an easy payment plan in 19 payments—19 months—no interest—no carrying charges—one year guarantee.

HOLMES

EDUCATOR PROJECTOR

Quality with Durability

Write for Complete Information.

HOLMES PROJECTOR COMPANY

Manufacturers of 16 mm and 35 mm Projectors

1812 N. Orchard Street Chicago

♦ Eveleth, Minn. The board of education has approved the establishment of a cadet system for unemployed teachers. Cadet teachers must have a teacher's certificate and must have been a legal resident of the school district for two consecutive years.

♦ El Dorado, Ark. Secret societies in the high school have protested a recent ruling of the school board in prohibiting secret orders and organizations in the high school. Two representatives from each of the four fraternities and two sororities have been appointed to attend a hearing on the question.

♦ Willimantic, Conn. The school board has reduced the tuition rate of pupils attending the Windham High School from $130 to $125 a year. At present there are 444 tuition pupils in the high school out of a total enrollment of 1,115.

♦ Hart, Mich. A new internal accounting system has been introduced in the schools. Under the system, there is one treasurer and all organizations handle their funds through this system. Each organization has its own ledger.

♦ The State Education Department of Illinois has inaugurated a new policy of supervision of the state's school system. The new system established three divisions known as the northern, southeastern, and southwestern districts, to each of which is assigned a supervisor, who visits and inspects all the schools. The plan calls for the visiting of schools by counties, placing the entire group assigned to a district in a county at the same time. The change was necessary in order to increase the efficiency of supervisory work, give the city elementary schools supervision equal to that of high schools, and at the same time reduce costs.

♦ Jonesboro, Ark. The school board has adopted a resolution, prohibiting activities of fraternities and sororities on or about the school grounds, and participation in any school activities, including football and other athletic events. The ruling has been placed in effect in all of the schools and is being rigidly enforced.

♦ Boston, Mass. The board of education has effected a saving of more than $25,000 in temporary teachers' salaries, heat, light, and incidental expenses, as a result of the postponement of the school opening to October 1. The permanent list of 4,760 teachers received nearly $1,000,000 in salaries for the entire month of September, although they were not required to report for work until September 30.

♦ Newton, Mass. A community forum, patterned after the famous Ford Hall Forum of Boston, has been established by Prof. Kirtley F. Mather, member of the Newton school board. It is the purpose to bring nationally known speakers to the city for a course of seven Sunday afternoon lectures during the coming winter. The school board has granted the use of the high-school auditorium for the lectures. The forum will be nonsectarian, nonpolitical, and season tickets will be on sale.

♦ Beverly, Mass. The school board has voted to suspend the local continuation school for this year.

♦ Milwaukee, Wis. Feminine objections to a proposal that high-school girls be obliged to wear smocks to classes caused Mr. George Strehlow, a member of the school board, to withdraw his resolution before submitting it to a vote.

♦ Tacoma, Wash. The school and park boards have voted to conduct a joint program of recreational work among boys and girls during the winter months. Two members of each board and two from the boys' club group will have charge of promoting the program. Application has been made to the federal government for aid in financing the program.

♦ Washington, D. C. All nonresident pupils have been excluded from three senior and two junior high schools this year, by an order of Supt. F. W. Ballou. The action which affects approximately 200 students in six schools, was taken because of a limited number of teachers and a lack of building space. Superintendent Ballou has announced that a limited number of such students may be admitted to certain schools where the enrollment of these students does not interfere with the proper care of pupils residing in the district.

♦ Blytheville, Ark. Midyear beginners' classes have been discontinued in the public schools as an economy measure. The action has made possible the eventual elimination of a number of small class units and a more equal distribution of the teaching load. In the future, all first-grade pupils, who will be six years old before February 1, must enter school in September of the previous year.

♦ Omaha, Nebr. The board of education is offering a postgraduate course to high-school graduates under 21 years of age, in exchange for ten hours of clerical service per week. Students who desire to take this training are required to make application at any high-school office.

♦ Providence, R. I. A junior employment service, designed to serve boys and girls between the ages of 14 and 21, has been established by the board of education. Under the plan, the federal-state employment service will allot $3,500 to the school department for the nine-month period from October, 1935, to June, 1936. A clerk and two counselors will be added to the present school placement staff for the expansion of the work.

♦ Quincy, Mass. The school board has rejected a proposal of an official of the PWA for fingerprints of children for identification purposes. The action of the board was based on the belief that fingerprinting might cause an unfavorable reaction on the part of the children.

♦ The Caddo Parish court in Shreveport, La., has rendered an opinion, upholding the right of the Caddo Parish school board to close and abandon a school at its discretion. The opinion was given by the court in answer to a suit by citizens in an attempt to force the Forbing school board to reopen the grade school which has been closed. The school was closed last summer as an economy measure and the pupils are being cared for in another school.

♦ The board of education of Tarrytown, N. Y., has changed the name of the Washington Irving School to the Frank R. Pierson School, in recognition of the service of more than forty years to the schools as president of the board of education and as a lasting tribute to his loyalty and devotion to the youth of the community.

♦ The teachers of West New York, N. J., sustained another defeat during the summer in their effort to have salary reductions in their community declared illegal. The Supreme Court of New Jersey has upheld the right of the legislature to amend the teachers' tenure law by authorizing boards of education to reduce salaries as an emergency measure. The court admitted that the status of tenure is in a sense contractual, but held that it is dependent upon a statute similar to those governing incumbents of other offices or positions which the legislature may abolish.

♦ Hickory, N. C. The rental of textbooks to pupils in the public schools has begun this year, under the state textbook rental plan. One third of the price of the book will be charged as a rental fee.

♦ State Supt. J. A. Keller, of Alabama, in a press statement, has declared that a total saving of approximately $375,000 will be effected as a result of the new textbook adoption, based on the new lower costs of books of the various kinds. A saving of 35 per cent will be effected in the first grade, 33 per cent in the third grade, and 22 per cent in the fourth grade.

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of every room

WITHOUT LEAVING YOUR OFFICE

THERE are two highly effective advantages of the RCA Victor School Sound System. One is administrative. Through the system you are in complete control of every room, without leaving your office. Your executive skill is tremendously expanded — with an actual large saving of time and effort. The second advantage is educational. Through the system you can direct to selected rooms the highly perfected modern educational work being done with radio and records.... The central point of the system is the new and exclusive RCA Control Cabinet, located in your office, containing two world-wide radios, a 2-speed phonograph, a microphone, and simple switches enabling you to work with one or more rooms, up to 80.... Other RCA Victor school equipment includes sound and silent motion picture projectors, sound amplifying systems for assembly rooms, gymnasiums, playgrounds, ball fields.... Send coupon below for full information.

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Commercial Sound Section, Dept. AS.,
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Gentlemen: Please send me complete information on the RCA Victor equipment for visual and aural instruction and administration.

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Dobbs Ferry
Aug 12, 1935

Gentlemen:

The following information is requested from the bidders on equipment for the Dobbs Ferry Public School, bids for which were opened Friday, August 9, 1935.

(a) - Whether the bidder maintains a permanent place of business, and if so, where it is located.

(b) - Whether the bidder has a plant and equipment adequate to do the work properly and expeditiously, and if so, a list of the plant and equipment available for this work.

(c) - Whether the bidder has appropriate technical experience, and if so, a description of some projects which he has carried out satisfactorily.

(d) - Information as to the name of the surety or sureties offered by the bidder, and in case more than one is offered, as to the amount of the security which each is to assume.

(e) - A statement with respect to the financial status of the lowest bidder, the same to be sworn to and brought down to date and to show the bidder's net worth. If the statement is not brought down to date, it should contain a declaration that the bidder's financial condition is as good as or better than at the time the statement was made.

The following information is required by the Board of Education:

(1) - What portion of the work is proposed to be sublet to contractors or materialmen.

(2) - Length of time engaged in business under present name, and location of a permanent place of business.

(3) - The jobs of similar character and magnitude completed by your organization or the members thereof within the past five years, names of architects and amounts of respective contracts.

(4) - Number of persons qualified to judge equipment examined for each job listed above.

(5) - Contractor's statement showing current financial position. Attention is called to the fact that the Board will require that the Contractor be possessed of enough liquid capital to assure completion of the contract without liens or assignments, and to insure payment of obligations arising from such work.

Note: Sections A, b, c, d, e, are required by the P.W.A. Please keep information from that section separate from information, items 1, 2, 3, 4, 5.

Immediate reply requested.

Very truly yours,

John A. McGinness

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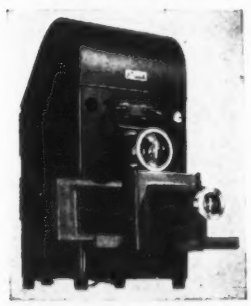

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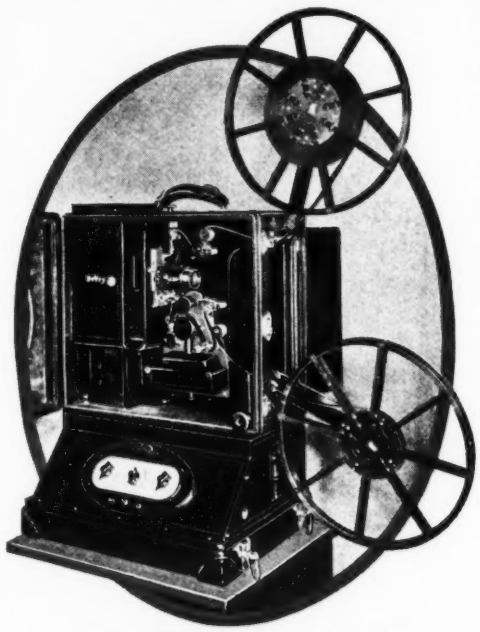

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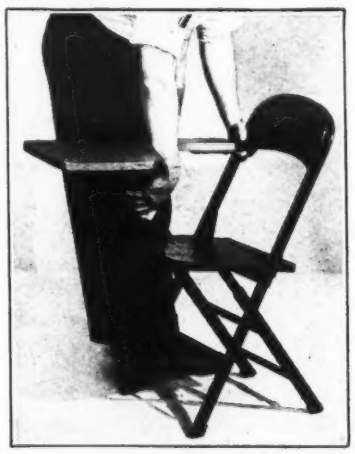

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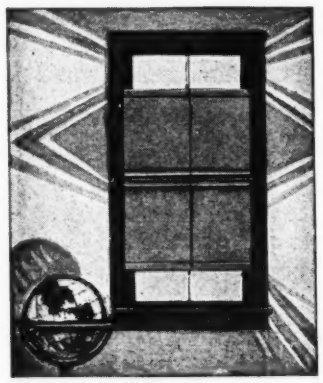

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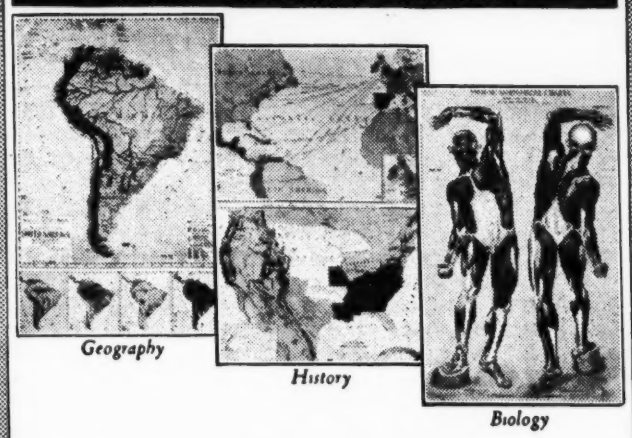

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Book News

Reading and Literature in the Elementary School

By Paul McKee. Cloth, 606 pages. $2. Houghton Mifflin Company, Boston, Mass.

This book is a companion volume to *Language in the Elementary School* (composition), reviewed in this Journal several months ago. Both are 1934 additions to the Riverside Textbooks in Education, edited by Ellwood Cubberley.

The author presents the findings of the recent investigations of the problems of teaching readings and literature and boldly offers his own suggestions on choosing subject matter and on methods of teaching. Many concrete illustrations are offered to clarify abstract principles and these are often followed by a detailed description of actual classroom procedure. There are also given many lists of references for further reading by the teacher as well as a number of lists of books for children and the mention of sources for obtaining other published lists.

The book will be found an excellent text for teacher-training classes and a useful and interesting book for the teacher's private library.

The English of Business

By Hubert A. Hagar, Lillian G. Wilson, and E. Lillian Hutchinson. Cloth, 238 pages. 80 cents. Gregg Publishing Co., New York City.

This book for the "business college" or the commercial course in the high school is based on the minimum essentials of English. It contains three units: Grammar review; vocabulary; and the principles of effective writing. The first two of these units are remedial, and the third, constructive. A lesson consists of a concise statement of a principle followed by definitions, examples, and exercises. The absence of all irrelevant material which is a feature of the book, makes the work a short cut to results.

Supervisory Guidance of Teachers in Secondary Schools

By Ellsworth Collings. Cloth, 623 pages. Price, $2.50. The Macmillan Company, New York City.

Assuming that pupils are active and not passive creatures, and that they learn through their own and not the teacher's activity, the author analyzes the normal processes by which boys and girls accomplish things when left to themselves and applies these principles to the guidance that teachers can supply for greater achievement.

The supervisor, is given, in addition to a comprehensive discussion of these principles, many outlines and suggestions for their application. The activities discussed cover a rather wide range including English compositions, mathematics, industrial arts, household arts, play, etc.

The Government of the American Public Library

By Carleton B. Joeckel. Cloth, 411 pages. Price, $3. University of Chicago Press, Chicago, Ill.

This book describes, analyzes, and evaluates the governmental organization of the public library. It makes clear how the various private corporations and later the true public types have developed and shows the relation of the library to the city or the other political unit to which it is attached. It does not take up the internal administration of the library except in the broadest sense.

The book begins with a historic account of the origins and development of the various types of library government. It next describes these and makes very clear that there has been no uniform development in any section of the United States. The most common form of government is, of course, the library board which is a branch of the city government and which is appointed by the mayor or the governing body of the community.

Libraries are not instrumentalities of the state like schools, but are purely local services. With few exceptions, the state has no direct interest in them, provides none of the funds, and fails to set up any uniform plan of organization or quality of service. Library boards vary enormously in their powers, in the amount of independent action which they may take, in their functions, in their continuity, and in their general efficiency. In some communities the powers shrink almost to the vanishing point — a situation which occurs particularly in cities having a strong political form of government in which there is considerable interference, for political reasons, in the minor commissions and boards of which the library is one.

If educators are dissatisfied occasionally with boards of education, they will probably appreciate the fortunate situation in which the schools and professional schoolmen find themselves when they read a book like the present. Library boards, of course, attract a high grade of public-spirited citizens and there is a common desire, and in many places a boast, that the library is not in politics, but the pressure of all kinds, political, economic, and local, which has controlled library funds, which has affected the appointment of library personnel, and which has interfered with the integrity of liberty policies and progress, is not without its serious results.

As in the school field, there has been a gradual improvement in the quality of the professional executives in charge of the library, and library boards have been inclined to more and more look upon the librarian as the chief executive who initiates policies and recommends the appointment of his assistants and associates. While this is an administrative problem, it is also a governmental problem, because the professional character of the librarianship and the proper relations between the board and this executive depend to a large degree upon the general attitude of all the governmental agencies of the community toward the library and finally upon the laws which fix the functions of the library board and its employees.

The present study makes clear that there is a great need for improvement in the character of library government, especially in smaller communities. The following seven conclusions of the author summarize the entire findings of the author:

"1. It is a safe general rule that a library which receives the bulk of its support from governmental sources should, except under unusual circumstances, be a part of government rather than a private corporation.

"2. As yet, no better type of library control has been devised than that in which the library is administered under the direction of a board of trustees with reasonably extensive powers. This board should be appointed by the mayor or by the governing body of the unit served.

"3. The foregoing conclusion applies with equal force to school-district libraries. It is, in general, true that adult library service very often has had a hard struggle when placed under the direct authority of boards of education.

"4. Similarly, there is no conclusive evidence that direct administration of public libraries as city departments under city commissioners or city managers will benefit the library either in its financial support or in its internal administration. In these cities, too, it is best to retain the library board appointed by the council.

"5. There is much reason to believe that a certain degree of independence of management and of governmental position is beneficial to the library and that a reasonable amount of legal protection of its interests is still necessary.

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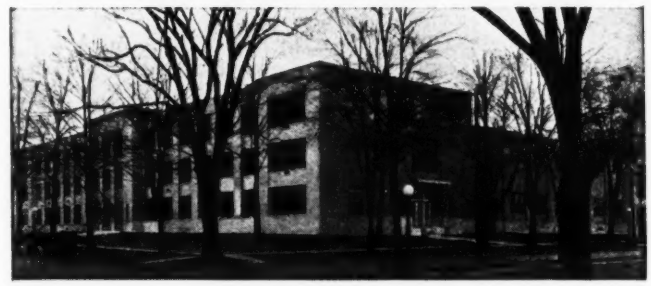

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"6. This independence, however, should not extend to the vesting of taxing authority in the library board. Determination of the library tax rate or appropriation should be made by the governing body of the unit served, or fixed by a popular referendum.

"7. A new principle for the financial support of libraries is urgently required. The amount received by the library should be based on the need for service rather than on the wealth of the community. This implies appropriations on a per capita basis and equalization of library support throughout the states."

Schoolmen will find these conclusions distinctly interesting; they represent in some respects the viewpoints of the schools as these were stated in the administrative literature of the late nineties. To ask that the selection of the library boards in the hands of the mayors or common councils, when like the school boards, this selective power might be placed in the hands of the electorate and thus remove the library boards from the present political domination is perhaps impractical. It does, however, signify the relative unimportance of the library as a major factor in the welfare of the state and the community. The same observation may be applied to the guarded recommendations of the author concerning the powers of the library board and its independent power to secure funds through taxation. The library quite evidently has a long and hard road ahead before its government will have arrived at the relatively safe and sound position to which the schools have advanced.

That the library is further concerned for its future, and its independent growth is made clear by the author in a discussion of the relations with the public schools. If we are to experience a vast development of adult education, there is certain to be a struggle for the control of the agencies entrusted with the program. The library wants no interference from the schools in this matter which it holds to be natural development of its function.

As the author puts it, the school is geared to the movement of children through a systematic and formal series of steps in a closely knit organization. The library is geared to the movement of adults and is more flexible in adapting itself to their interests, needs, and capabilities. The marked inferiority of the library in financial importance makes a real danger for the subordination of the library program to the school program. If the library is to succeed in the future, it must offer much more of a direct and formal program of adult education, in many subjects, must offer lecture courses, and take an active part in the organization and direction of the whole system of adult education. In doing so, it is likely to meet the active opposition of the schools because of their natural desire to dominate all the educational activities of the community. The service to adults will not be satisfactory in a larger sense if the schools dominate. The experience in cities where the school boards have controlled the libraries give evidence that the libraries do not fare so well as in cities where they are independent of these influences.

Finally, it is interesting that the author holds that the future improvement of library government will result from "constant and continued improvement" of existing agencies rather than radical innovations and changes. The library is not necessarily a town or county affair. "To reach its greatest usefulness to all people, the library must step out of the strictly local class into a wider field, accompanied, probably, by greatly enlarged units, both of service and of government. It would be contrary to the whole history of American libraries to expect that this result will be achieved by uniform methods in all parts of the country."

Fusion Mathematics

By Aaron Freilich, Henry H. Shanholt, and Joseph P. McCormack. Cloth, 608 pages, illustrated. Price, $1.84. Silver, Burdett & Company, Newark, N. J., and New York, N. Y.

This text includes arithmetic, algebra, geometry — all arranged to afford a challenging course for boys and girls who have low mathematical ability, or who will not require college-entrance credits. The practical applications to business and home life set a new standard for motivation and the inculcation of inherent life values.

Intermediate Algebra

By Aaron Freilich, Henry H. Shanholt, and Joseph P. McCormack. Cloth, 416 pages. Price, $1.40. Silver, Burdett and Company, Newark, N. J.

This second course begins with a brief review and then carries forward from factoring into radicals and exponents. Concluding chapters present the theory practical application of logarithms, arithmetical and geometrical progressions, and the meaning and use of statistics.

Webster's Elementary Dictionary

A Dictionary for Boys and Girls. Cloth, 739 pages. Price, $1.25. The American Book Company, New York, Chicago.

This is the latest addition to the Merriam-Webster series of dictionaries of the English language. It is, strictly, a children's book. The editors announce that they have included in the 38,500 entries all of the 10,000 commonest words found in Horn's study, and the commonest 20,000 words, which according to Thorndike, are found in print in America. The editors have, however, rightfully considered both the Horn and Thorndike lists as adult lists and have added an unstated number of words which, in their experience, are common to child life and necessary in school work.

The vocabulary, however, is not the feature which makes the book a children's dictionary. It is rather the successful effort which has been made to make the definitions extremely simple and within the comprehension of children. So, too, the explanations and examples of common usage are directed to children and intended to come within their experience. There is here no writing down, and it is especially satisfactory to find that "manufactured" illustrations are absent. Children need much help in language study in the direction of vocabulary building; grammatical use of words must be insisted upon especially in the case of exceptions and irregular usage; idiomatic expressions must be acquired; and irregularities in the plurals of nouns and in the tenses of verbs must be emphasized. All these problems have been carefully considered by the editors of this work.

All words, including proper names, are presented in one continuous alphabetical arrangement. The book includes more than 1600 illustrations which lighten the pages and which make clear many terms of objects and actions that otherwise might be left in doubt.

A careful study of page after page shows that the book contains nothing in the way of childish definitions or illustrative examples which the child will be obliged to unlearn in adult life. The book uses the typical "dictionary" pronunciation symbols which are always a bit difficult and cumbersome.

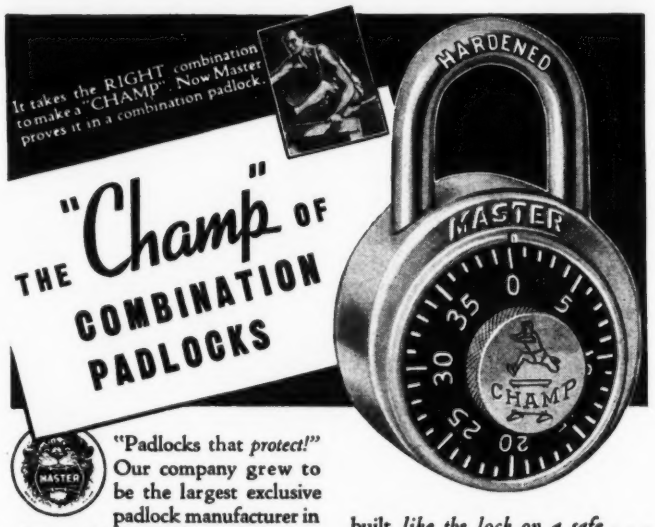
Fuzzy Wuzzy and Other Stories

By Rowena Califf. Cloth, 128 pages, illustrated. 80 cents. The Bruce Publishing Company, Milwaukee, Wis.

Primary teachers who have seen *Pinkey Dew and Other Stories*, by Miss Califf, will welcome this new collection of stories about Fuzzy Wuzzy Bear, Benny Squirrel, Jimmie Rabbit, the fairies, etc. They will find here the same child interest in tale and picture and also the author's clever rimes thrown into the stories. Here is one of them:

It's nice to make folks happy,
It makes us happy. See,
The merry-go-round is merry,
For pleasing you and me.

(Concluded on Page 72)



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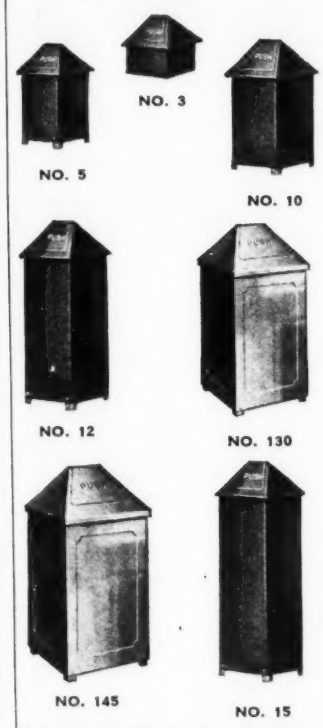

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(Concluded from Page 70)

Picture Scripts

Edited by Coffin, Hughes, Tchaika, and Wright, of the Lincoln School of Teachers College, Columbia University. Paper, illustrated. Edward Stern & Company, Inc., Philadelphia, Pa.

Picture Scripts consists of a number of booklets, which may be roughly divided into children's stories on animals, transportation, fire fighting, and poetry.

The animal stories consist of seven booklets of uniform size, each containing 48 pages. The titles are: "Owney, the Postal Dog," "Tabby and the Boat Fire," "Maria Mello and her Monkey," "Penny Penguin," "Binkie and the Fireman," "Old Strawberry and Molly," and a tale of a cow named Whitey in "A Story of Milk." Transportation is interestingly portrayed in three booklets under the titles: "Trains," "Boats," and "The Tugboat." Fire fighting is covered in two booklets of uniform size. Their titles are: "Fire! Fire!" and "The Fireboat."

Book One of "Poems of Today" contains 64 pages of interesting verses for children.

These booklets are evidently designed for the lower grades, although the ones on transportation appear rather too advanced to be used with the smaller children. The magnificent illustrations, however, would carry the story even if the words were unintelligible.

The March of a Nation

By Alice C. Cooper and David Fallon. Cloth. 529 pages. Price, $1.72. D. C. Heath & Company, Boston, Mass.

This is the life story of the United States, as recorded by its poets, essayists, historians, novelists, and above all, by its statesmen and public-office holders. Generally speaking, the selections are excellent literature and will serve to integrate the work in social science and especially history and English.

The editors have taken care to keep the extracts from longer works brief enough to be studied as complete units in both the history and the English courses. They have given considerable attention to the orderly sequence, the factual reliability, and the human-interest values of the materials. Elsa Barker's poem on "Peary" is the only discordant note in the book and should be removed.

Teachers who use this work will not want to go farther to seek additional readings for the average time available in the upper grades and the junior high school.

Legislative Action in 1935 Affecting Education

By Ward W. Keesecker. Paper, 45 pages. Bulletin No. 145, September, 1935. U. S. Office of Education, Washington. D. C.

A bulletin summarizing the principal legislative measures of 1935 relating to education and enacted into law in the various states.

Thirteen Educational Foundations and American Higher Education

By Pedro E. Y. Rio. Paper, 108 pages. Temple University, Philadelphia, Pa.

This dissertation for the Doctorate in Education analyzes the program of work and the actual financial aid rendered by the thirteen largest educational foundations. While the study discusses the origin and the general service of these foundations, it discusses specifically their work during the past five years, 1930–1934. Indirectly, the study makes clear that the major foundations have placed most of their funds with the largest and most prosperous universities and colleges, and it is the exception that one of the foundations, the Julius Rosenwald Fund, has assisted smaller organizations where the need seems to have been the greatest.

Winnie the Pooh
The House at Pooh Corner
Now We Are Six
When We Were Very Young

By A. A. Milne. Cloth, octavo, Price, $1 each. E. P. Dutton & Co., New York City.

One of the important and responsible tasks of parents and teachers is the selection of the right kind of books for children. The impressions made by books on children will undoubtedly affect their entire lives. Good literature is one potent means of not only molding character, but also stimulating the imagination, and thoroughly entertaining a child.

A. A. Milne has proved the literary and educational worth of his writings by meeting all these requirements in *Winnie the Pooh, The House at Pooh Corner, Now We Are Six,* and *When We Were Very Young.* In the present books these classics are now offered at a new low price, with a most attractive makeup, and excellently illustrated by Ernest Shepard.

Children from 6 to 60 have been charmed by Milne's poetry as well as his prose. In fact, the opening pages of each of these works carry the adult right into the tender, whole-hearted lives of Christopher Robin and his Pals and make the adult reader want to acquaint children with the misadventures of these queer, lifelike animal folks.

In the books *Winnie the Pooh* and *The House at Pooh Corner,* which are narrated in most beguiling prose, the animal element is predominant, an element that always has a strong appeal for children. Each poem in *When We Were Very Young* and *Now We Are Six holds* a fascination that years of reading to youngsters has not worn off.

Geography Education in Elementary and Junior High Schools

Bulletin 91, 1935, Department of Public Instruction, Harrisburg, Pa. This curriculum study offers very complete suggestions for courses of study in geography in grades one to eight, inclusive. The material is presented in unit form and includes bibliographies of printed materials, maps, globes, and pictures.

Daylight, Twilight, Darkness, and Time

By Lucia C. Harrison. Cloth, 224 pages. Price, $1.24. Silver, Burdett & Company, New York, N. Y.

Teachers of geography will heartily appreciate this book, which explains in detail, latitude, longitude, and human affairs. Whether the work is used by teachers of geography, economics, or general science, it will be found to contain an enormous number of facts not easily accessible except in a wide variety of technical works. The mathematical section of the book in which problems of computing sun-behavior from position in latitude are discussed, is particularly useful and simple.

The Minimal Vitamin A Requirement for Growth

By Earl A. Shrader. Paper, 32 pages. Published by Temple University, Philadelphia, Pa.

This dissertation has been accepted for the Doctor's Degree in Education. Its purpose is to determine the minimal amount of vitamin A required to produce a satisfactory growth in a white rat. The amount of vitamin A was represented in the experiments in the form of cod-liver oil, added to vegetable margarin. It was shown that cod-liver oil added to vegetable fats make the latter adequate foodstuffs in regard to energy and vitamin A potency and reproduce substantially the results obtainable with the use of good butter.

Survey Data Book and Standards of Physical Plant for Colleges and Universities

By N. L. Engelhardt, Charles E. Reeves, and Carl West. Paper, quarto, 151 pages. Published by Teachers College, Columbia University. New York, N. Y.

In this outline the well-known Engelhardt technique for judging the efficiency of the operation and maintenance of school buildings is applied to college and university plants. The fifteen major topics considered are as follows:

1.	Administration of plant operation and maintenance	105 points
2.	Personnel	100 points
3.	Facilities for service	45 points
4.	Preservation of floors	70 points
5.	Cleaning of floors	55 points
6.	Elimination of dust	40 points
7.	Periodic cleaning, rehabilitation and decoration of furniture, woodwork, walls, and ceilings	65 points
8.	Cleaning of glass	50 points
9.	Cleaning of toilet rooms	90 points
10.	Cleaning of blackboards, chalk trays, and erasers	25 points
11.	Miscellaneous cleaning jobs	40 points
12.	Heating and ventilation	145 points
13.	Care of grounds	60 points
14.	Fire protection	75 points
15.	Special work	35 points
	Total	1,000 points

This data book, if used intelligently and sincerely, will reveal hundreds of facts and conditions which a college-plant executive is overlooking because of his closeness to his work. Unquestionably, the outline can be criticized as a mechanical device and as involving numerous items which do not apply to a given situation, but it is certain that the application of the standards, as well as a general checkup of conditions listed will make for a distinctly better personnel and for more efficient upkeep of buildings.

Legislative Action in 1935 Affecting Education

By Ward W. Keesecker. Paper. 24 pages. Bulletin of June, 1935, of the U. S. Office of Education.

The second of a series of bulletins on legislative activity in the various states during the year 1935. The present bulletin summarizes legislation action in thirteen states, including Alaska, Arkansas, Colorado, Delaware, Indiana, Iowa, Kansas, Maryland, Minnesota, Montana, Nevada, Oregon, and Utah.

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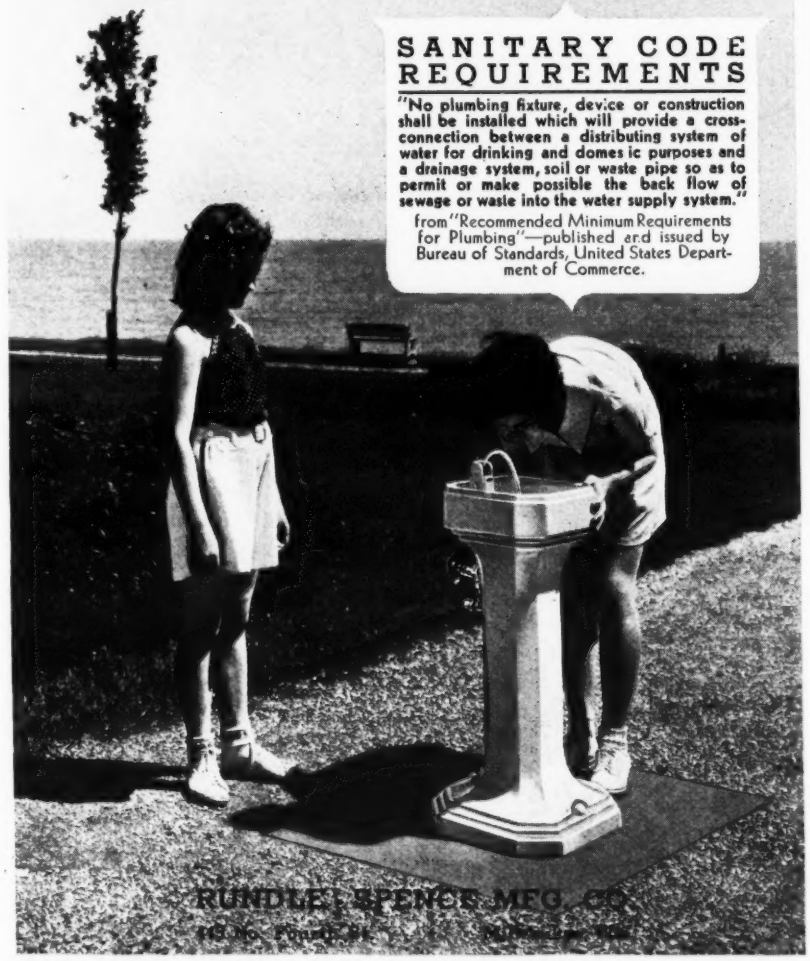
Drinking Fountains


SANITARY CODE REQUIREMENTS
"No plumbing fixture, device or construction shall be installed which will provide a cross-connection between a distributing system of water for drinking and domestic purposes and a drainage system, soil or waste pipe so as to permit or make possible the back flow of sewage or waste into the water supply system."
from "Recommended Minimum Requirements for Plumbing"—published and issued by Bureau of Standards, United States Department of Commerce.

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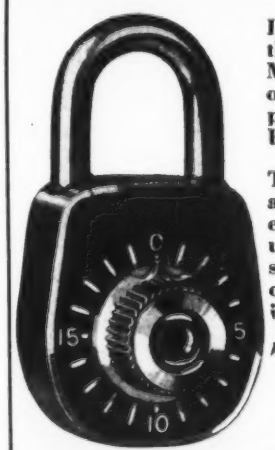

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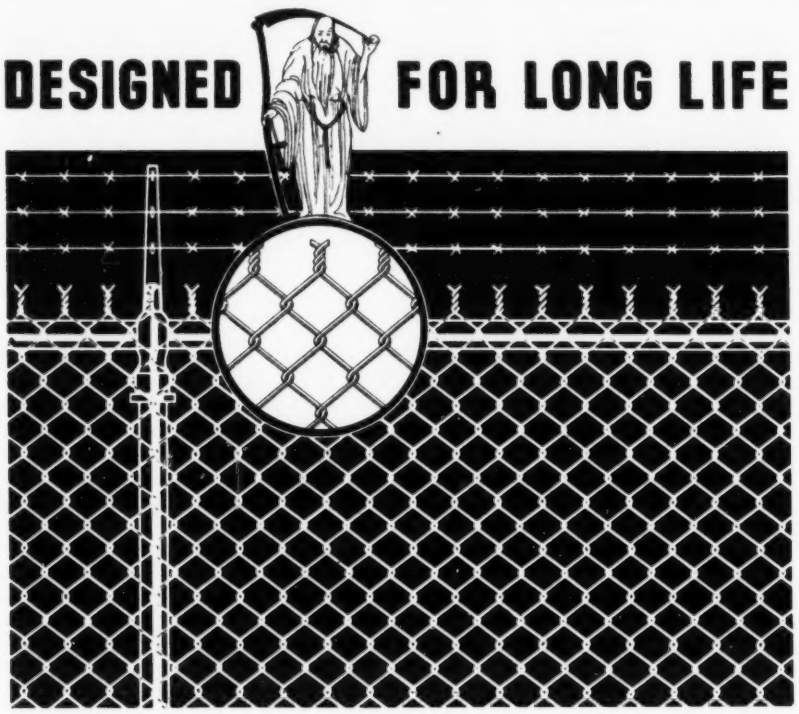

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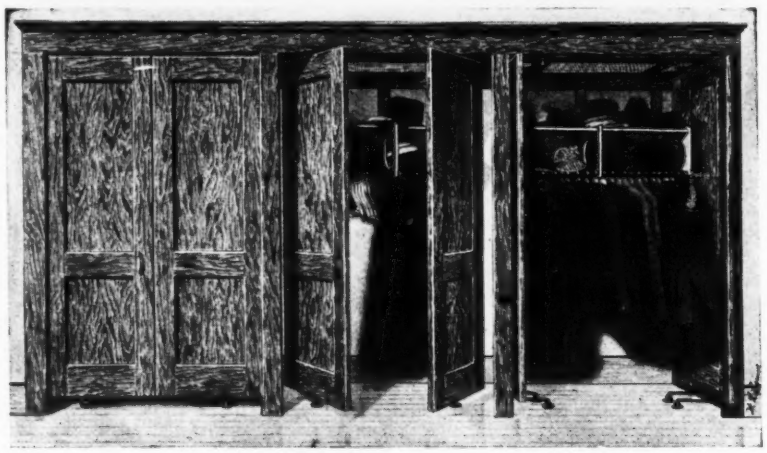

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School Finance and Taxation

FUNDS FOR SCHOOL FINANCING

United States funds not exceeding an aggregate amount of $10,000,000 are available for loans to public-school districts for the refinancing of outstanding indebtedness. In Circular No. 20, issued by the Reconstruction Finance Corporation, it is announced that these loans will be available for any outstanding indebtedness incurred prior to August 24, 1935, in connection with the construction, operation, or maintenance of public-school facilities.

Security for loans will be required in the nature of bonds, notes, or other obligations which school districts are authorized to issue legally. Bonds or notes which are liens on school property will also be acceptable. An interest rate of 4 per cent has been fixed and the loans will not be permitted to extend longer than 33 years.

After a loan has been granted, boards of education will not be permitted to issue later notes or other obligations, except with the consent of the government, and an annual assessment of taxes must be made for the retirement of the debt.

An appraisal of the taxpaying ability of the taxing district will be made in the case of each loan. A general study will also be made of outstanding bonds, notes, and other obligations which are to be reduced and refinanced by the loan so that the government may be assured that there is an advantage to the community in the refinancing. In general, the purpose of the investigations and restrictions is merely to make sure that the refinancing operations are economically sound and will promote the general welfare of the community.

School districts will be required to observe minimum wage laws and limitations as to hours of employment and age of employees. Local school districts will pay no fees or commissions for the loans but will be required to pay the expenses incurred in making appraisals and field examinations.

The new moneys will not be available for the payment of teachers' salaries which are already provided for under earlier legislation.

Applications for the loans, it is expected, will be made directly to the Reconstruction Finance Corporation at Washington, D. C.

SCHOOL-FINANCE NEWS

♦ West Allis, Wis. Faced with a threatened four-month closing of the public schools because of a shortage of school funds, the city council has voted $40,000 from the city's general fund to keep the schools open. The shortage arose because the school board restored a third 5 per cent of the 1933 salary cut of the teachers. Because of the raises, the schools lacked funds for fuel, light, and water for the remainder of the year.

♦ Asheville, N. C. The school board has prepared its budget for the year 1935–36, calling for a total expenditure of $322,682, which includes $75,150 to be raised by a special supplementary tax. The largest item in the budget is $249,906 for instruction expenses.

♦ Gary, Ind. The school board has prepared a budget for 1935–36, providing for a total expenditure of $1,933,013.

♦ Milwaukee, Wis. The school board has prepared a budget of $10,438,633 for the school year 1935–36, which represents an increase of $1,062,434 over 1934–35.

♦ Columbus, Ohio. The school board estimates that there will be a deficit of nearly $400,000 in the school treasury during the current school year. The board will be faced with the problem of obtaining a loan to keep the schools in operation until after Christmas, or to find new sources of revenue and to reduce the already pared school budget.

♦ Three Rivers, Mich. The board of education has adopted a budget of $105,000 for the school year 1935–36. Of the total amount, nearly $80,000 is furnished by state aid and outside sources. To meet the balance, the board has approved a 7½-mill tax rate for the year.

♦ White Plains, N. Y. The school board has prepared a budget which will require $1,285.909 for the year 1935–36. The gross budget is $1,698,060, which represents an increase of $171.135 over last year.

♦ New Albany, Ind. The school board has asked for a total of $217,000 for the operation of the public schools during the year 1935–36.

♦ Oklahoma City, Okla. The school board has taken steps to carry its school-budget controversy to the Supreme Court for settlement. A mandamus action has been asked to force the excise board to approve the school budget. Based on the present city school-district valuation of $121.000,000, the 14.5 mill levy the excise board plans to give the city schools, instead of the full 15 mills demanded by the school board, will automatically reduce the school budget by $60,000. The school board had previously cut its budget by $144.000, and this newest reduction would practically eliminate the provision for increased teachers' salaries.

♦ Omaha, Nebr. A budget of $3,652,630 has been adopted by the board of education for the school year 1935–36. This budget is nearly $200,000 greater than the estimate for the last year. The largest item of $2,082,920 is for instruction expenses, including salaries of teachers, supervisors, and principals.

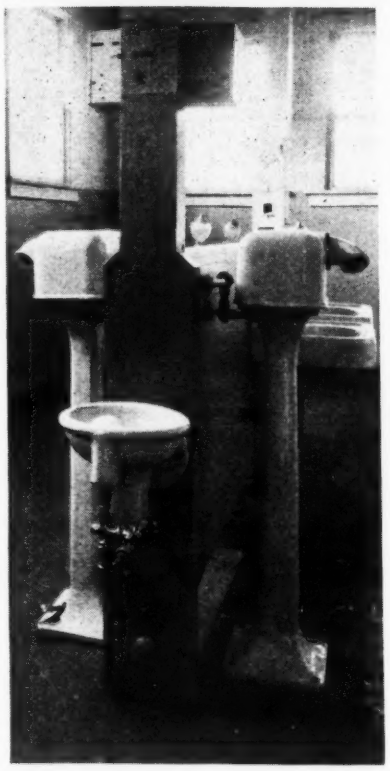
♦ Toledo, Ohio. The board of education is confronted with an estimated deficit of more than a million and a half dollars at the end of the school term in May, 1936, and is facing a critical financial situation. The board must in the near future solve the problem of operating the city schools for a nine-month term, at a cost of approximately $2,700,000, with only $1,047,000 revenue in sight. The most serious problem lies in meeting expenses for the period from January 1 to the end of the school year, since no income is in sight for that period.

♦ The principal needs of the public schools of Providence, R. I., according to Supt. A. J. Stoddard, are a greater degree of financial aid from the state, increased high-school facilities, and means for extending educational opportunities to younger children and older students. According to Mr. Stoddard, it cost the city $3,976,940, exclusive of capital charges, last year to operate the schools. It was estimated that less than 2 per cent of the cost is borne by the state. An increase in the amount of financial support of education by the state is recognized as logical and necessary.

♦ Rockford, Ill. The board of education is anticipating a deficit of $165,000 in the school treasury by January 1, which will require drastic action in the form of economy measures. The board faces the problem of how to save an additional $115.000 in expenses between now and the end of the calendar year. The board has voted to restore salaries of teachers, principals, supervisors, janitors, building custodians, and clerical help to the 1934–35 levels, effecting an over-all reduction in salaries, totaling approximately 17½ per cent, or about $14,000 monthly. Salaries for the first half of September were paid at the increased rate, a uniform 10 per cent below the standard pay schedule of several years ago.

♦ Eastport, Me. The school board is facing a serious financial problem during the present school year, due to the fact that there will be an increase of $25,000 in school expenses. It is planned to operate the schools as long as there are funds with which to pay the teachers.

♦ The State Supreme Court of Arkansas, on September 23, ruled that the Arkansas State Board of Education has the authority to issue bonds for the main-



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tenance of its revolving loan fund. Out of this fund loans are made to the school districts of the state to refinance outstanding obligations. A taxpayer had attacked the issue as unconstitutional.

♦ The Philadelphia board of education has reported that in September, 1935, a total of 23.99 per cent of its 1934 taxes remained uncollected. For 1933, 15.75 per cent are uncollected, and for 1932, 8.46 per cent. The board of education has a net outstanding bonded indebtedness of $36,877,526.

♦ Mt. Vernon, N. Y. The board of education recently adopted a tentative budget of $2,593,657 for the school year 1935–36. Deductions for state and federal aid, interest, tuition, salary contributions and increments, plus the cash balance on hand, will bring the net budget to $1,827,838, or an increase of $126,450 over last year's budget estimate of $1,701,388.

The salary increases voted by the board, plus the reduction for teachers' contributions and increments, represents the return of a large portion of the voluntary salary cuts. Where teachers' contributions and increments amounted to $224,123 in 1935, the 1936 reductions will bring the figure to $178,879, or $43,244 less than the amount turned back by the teachers during the last year.

♦ Rapid City, S. Dak. The school board has adopted a budget of $247,852 for the school year 1935–36, which is an increase of more than $11,000 over the budget for the last year. The larger part of the items in the budget were reduced, with the exception of instruction costs, which was increased by $14,000, due to salary increases and the employment of additional teachers. Debt service was reduced from $53,000 to $49,937.

♦ Indianapolis, Ind. The Marion County board of tax adjustment has approved the school budget and levy, providing for an increase of $350,000 in the total budget over the estimate for 1934–35. The budget will now be reviewed by the state board of tax commissioners.

♦ The Columbus, Ohio, board of education reported that its present bonded indebtedness is $8,690,335 as of September 1, 1935.

♦ The board of education at Highland Park, Mich., has made public a statement that its bonded indebtedness as of September 1, 1935, was $3,247,500. Its tax collections for the year ending July 1, 1935, was 15.69 per cent delinquent on the 1934 collections, 22 per cent on the 1935 collections, and 47 per cent in the 1936 collections.

♦ The board of education of Wichita, Kans., has only 7½ per cent of its tax levy for 1932–33 delinquent. It has collected full 100 per cent on its 1933–34 taxes and 86 per cent on its 1934–35 taxes.

♦ Aberdeen, S. Dak. The board of education has adopted a budget of $294,426 for the school year 1935–36. Of the total, $260,941 will be raised by taxation, which is $6,000 in excess of the amount for 1934–35. The largest item in the budget is $195,044 for salaries of teachers, supervisors, principals, janitors, nurses, and school secretaries.

♦ Eau Claire, Wis. The budget of the school board for 1935–36 calls for $270,000, which is an increase of $7,000 over the estimate for 1934–35. The larger budget has been provided to meet increases in teachers' salaries.

♦ Boulder, Colo. The new budget of the school board for the year 1935–36 has been increased by $35,000 over the estimate for 1934–35, due to the partial restoration of teachers' salaries.

♦ Madison, Wis. The board of education has adopted its 1935 school budget, calling for a total of $1,092,509. Of this amount, $1,052,030 is for operating expenses, $31,024 for maintenance, and $9,454 for capital outlay.

The 1936 budget, which is being held in abeyance pending its revision, calls for $1,123,300, or an increase of $30,791 over the 1935 estimate. Of the total, $1,077,151 is for operation, $27,563 for maintenance, and $18,585 for capital outlay. The sum of $76,515 is included in the budget for recreation expenses. The salary item provides $51,845 for normal increase of teachers' salaries through the return of 5 to 7½ per cent on salary adjustments. The sum of $10,000 will be used to correct the system of scheduled salary increases in order to make it uniform.

School Building News

♦ Ann Arbor, Mich. The board of education has approved a proposal for the construction of a junior high school. The estimated cost of the building is $330,000, of which $130,550 has been allotted to the school district by the PWA.

♦ Contracts have been let for the construction of new school buildings at Concord, N. C. Plans have been prepared by M. R. Marsh, architect, of Charlotte.

♦ Selingrove, Pa. The board of education has called for bids for the construction of a high school, to cost approximately $138,400. Of the total cost, 45 per cent, or $61,000 has been allotted by the federal government, and a $50,000 bond issue has been provided by the school district.

♦ Anaheim, Calif. The school board has received notice that the federal government has allotted $61,537 toward the cost of construction of a new school.

♦ Ansonia, Conn. The federal government has approved a grant of $190,632 toward the cost of construction of a new high school.

♦ Albany, Oreg. The school board has received notice of the approval of its application for a PWA grant of $99,000, to be applied toward the construction of two new schools and one addition.

♦ The PWA at Washington, D. C., has approved federal aid funds for the construction of the Romona Junior High School at San Bernardino, Calif., and for a girls' gymnasium building at Redlands. The former will be erected at a cost of $78,000, of which the PWA will furnish $38,515, and the latter will cost $100,000, of which the PWA will furnish $48,000.

♦ The PWA at Washington, D. C., has approved the allotment of two and one-half million dollars for school-building projects to be undertaken by the board of education at Toledo, Ohio. A total of 34 school projects are included in 49 PWA allotments approved for Lucas County. The contribution of the federal government on these projects is figured on a 45 per cent basis and will total approximately one million dollars.

♦ South Bend, Ind. The board of education has proposed the erection of additions to two buildings and the construction of a new building for the Marquette District. Plans have been prepared for the latter building which will be constructed with the aid of PWA funds.

♦ Boulder, Colo. The board of education has called a bond election to obtain the approval of the voters on a proposed bond issue of $300,000 to be applied toward the construction of a high school, estimated to cost $517,000. The bond issue will match a grant of the federal government amounting to $217,000.

♦ Topeka, Kans. The school board has received notice of the approval of federal grants totaling $279,000 for the construction of the East Topeka Junior High School and the Sumner grade school.

♦ Okmulgee, Okla. Five school-building projects, calling for a total expenditure of $53,501 have been approved by the WPA. The WPA will contribute $39,234 of the total amount required.

♦ Dallas, Tex. The PWA has approved the application of the school board of Dallas County for $90,938 in federal funds to be used in the erection of four school buildings. The buildings will be erected in Garland, Carrollton, Pleasant Grove, and Cedar Hill, at a total estimated cost of $200,000.

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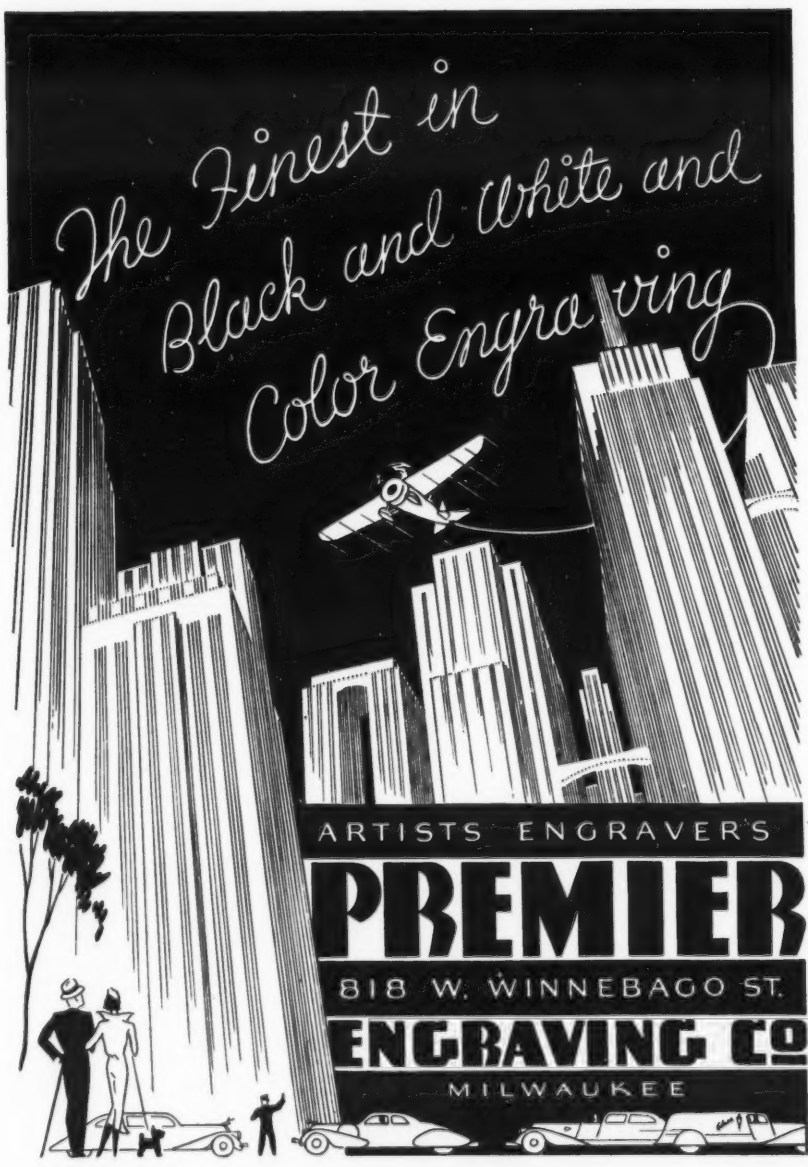

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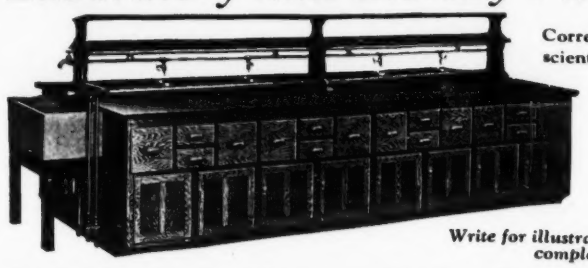

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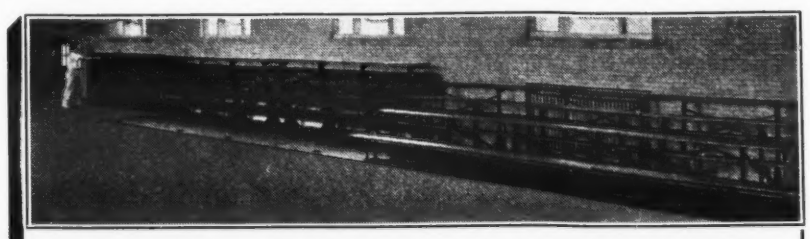

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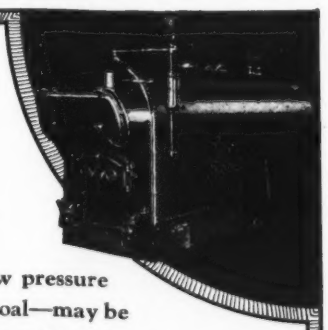

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Teachers and Administration

♦ Rochester, N. H. The school board has voted to appoint a special committee to study the possibilities of apprenticeship for unemployed teachers of the city who have not had the experience required by the rules of the board. The purpose is to employ these inexperienced teachers for substitute teaching. They would gain their experience under the direction and observation of the local teaching staff and the superintendent.

♦ Cincinnati, Ohio. The board of education recently approved appointment of 56 new teachers, 20 of whom were residents of other cities. Nonresident teachers are accepted for teaching positions because they have had several years of teaching experience.

♦ Milwaukee, Wis. The board of education has refused to rescind its rule that the salary of any teacher or principal who does not resign at the age of 70 will be cut to $2,400 a year.

♦ Valparaiso, Ind. The kindergarten has been resumed on a full-time basis. During the past two years this department has been on a part-time basis.

♦ Waukesha, Wis. A new system of schoolboy police cadets has been instituted in the six ward schools and the Lincoln Junior High School. The cadets, chosen for their merit and reliability, have taken over the work of protecting school children at intersections to the school buildings. The cadets replace relief workers formerly employed for this service.

♦ Supervised study was introduced in the high school at Estherville, Iowa, this year. Each high-school period is 60 minutes in length, with 35 minutes given to assignment and recitation, and the remaining 25 minutes to study of the next day's assignment. Both faculty and students have entered into the new setup with enthusiasm and it is expected that the plan will result in a reduction of failures. The plan is being administered under the direction of Mr. W. A. Cresap, principal of the high school.

♦ Onawa, Iowa. The public schools have undertaken an improved program of activity and school organization. The center of interest is the new athletic field which has been laid out for use this year. Plans have been made for lighting this field. A new band program, enrolling 150 students, has also been started. The program begins with the fourth grade and extends through the high school. The school faculty has been organized as a special committee to undertake a study of subjects relating to the improvement of the school program.

♦ Detroit, Mich. A new type of report card has been introduced in the elementary schools on an experimental basis, for a period of one year. In addition to a report on the work of the academic subjects, the card carries a section devoted to citizenship. Such qualities as adaptability, courtesy, initiative, and reliability are checked by the teacher.

Under the heading of scholarship, the subjects taught do not receive numerical grades as in past years, but are marked S for satisfactory, U for unsatisfactory, and E for excellent.

♦ The Department of Visual and Radio Education of the public schools of Detroit, Mich., has begun its second year of radio programs. The programs, which are of two types, are broadcast directly into the classrooms, or into the homes. Among the programs for classroom use are "Our World Today," which is being devoted to the fifth and sixth grades, and which is aimed to stimulate activities leading to an understanding of social problems. "Men and Affairs," which is intended for students of high-school grade, is devoted to comments on current events.

There are also special programs for parents and friends of education under the title of "The News in Education," which reviews current events and events in the field of education.

♦ Imlay, Mich. A new report card has been put into operation with the opening of the school year. The card this year indicates the pupil's effort along with his success of attainment. It checks on social adjustment and health habits. The pupil is not given a mark for each subject, but is checked on the various items of ability in each subject. For instance, in the sixth grade, a pupil will be marked on the use of good English, neat written work, thoughts well expressed, and ability to make complete sentences. In high school, the pupil will be graded as passing, unsatisfactory, or failing. On skills, the pupils will be graded for extraordinary ability or unsatisfactory efforts.

♦ A senior-high-school course, to be known as a senior survey, has been introduced in Lorain County, Ohio, under the direction of Supt. C. E. Gibbens. The survey is a so-called "brush-up" in English, reading, and mathematics and a review of the essentials of grammar, figures, and good reading. The course was planned as a stopgap to criticisms of the school system because high-school graduates went out of the school without enough knowledge to add up a set of figures or speak good English.

♦ New Bedford, Mass. The school board has approved new courses for high-school students who find the regular college-preparatory and commercial courses unsuited to their needs. The purpose is to simplify the work to meet their individual capacities, and to offer work that will serve as a general preparation for life.

♦ Fort Worth, Tex. The school board has awarded contracts for equipment in two new schools. Three building projects have been completed and have received the approval of the board.

♦ Michigan City, Ind. The board of education has made application to the PWA for $200,000 of federal funds to be used in the construction of an industrial-arts building and an auditorium-gymnasium.

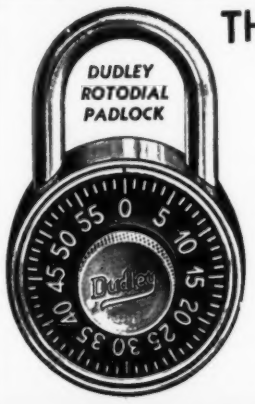
♦ Shelbyville, Tenn. A visiting-teacher program has been established to take the place of the old-time truant officer. The plan is being tried out as an experiment during the present school year.

♦ Huntingburg, Ind. The school term for the 1935–36 school year has been increased from eight to nine months. During the past three years the term had been restricted to eight months. Teachers' salaries have been raised this year, the school-tax rate has been raised, and the prospects for a successful school year are very bright. A scientifically prepared budget, ably defended by the board of education before the tax adjustment board, is the basis for the changed financial condition.

♦ Dr. Henry R. Linville and Dr. Abraham Lefkowitz, for many years leaders in the New York City Teachers' Union, have begun the organization of a New York Teachers' Guild. With some 650 members of the Union, these old leaders retired in September from the organization which they had helped to organize, and which they had led for many years. Their action was entirely a protest against the communistic tactics of a group in the old organization, who had insisted upon introducing un-American influences into the Union.

The new organization, headed by Doctors Linville and Lefkowitz, is to carry on a work similar to that of the old Union, but is to be controlled by policies in harmony with those of American democracy, American education, and American labor.

♦ The Superior Court, at Dover, N. H., recently refused to make a ruling in the case of seven married women barred from teaching in the Rochester, N. H., schools because they had married. The court referred the case to the supreme court of the state for a ruling. The teachers are holding their positions in the Rochester schools without contract, pending the ruling of the Supreme court.



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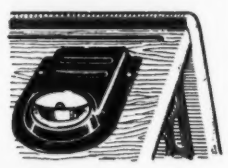

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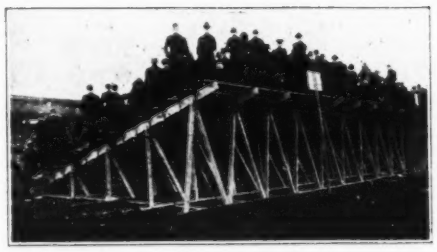

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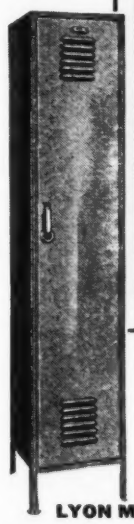

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INITIAL STEPS IN APPLYING A SCHOOL-HEALTH PROGRAM

(Continued from Page 30)

and attention was given the matter without delay by a member of its staff.

In keeping with the general practice in most modern schools, a part of each day was set apart for physical-education activities. These included certain drills for relaxation and diversion, as well as supervised play and games in the building and on the campus.

But by far the greatest gains in the health program of the school came through the use of what is popularly known as "The Blue Ribbon Plan." This is in the nature of a school-health contest, in which blue ribbons in the form of a two-inch blue bar, modeled after a service bar with a pin attached, is awarded each pupil who meets the conditions. It is based upon the idea that "the child's interest must be enlisted and that this must be done on the child's level of appreciation. Participants qualify on the basis of individual health rating, immunity status, the practice of health habits, and the requirements for good school behavior and satisfactory class progress."

On the date set by the health department for the beginning of the annual physical examination of pupils, a room at the school building was prepared to be used exclusively for this purpose. Here were placed the scales for weighing the students, the instruments for testing heart and lungs, and on the wall the cards for measuring vision. Usually one or two doctors from the department were present, assisted by several nurses, and three or four ladies from the local parent-teacher association to transcribe the individual records. This examination of grades one, three, five, and seven, never a hurried one, is completed in five days in this school of 525 pupils.

At the close of this examination, a wall chart was left in each room. This showed at a glance the physical condition of each child in the room and indicated the corrections that must be made before he can become a Blue Ribbon pupil. To this chart pupils and teachers turned every day and experienced the thrill of accomplishment as the red stars which indicated defects corrected were gradually added.

In carrying this program out, it was necessary that children should make frequent visits to the health department to determine, for instance, whether at that particular time they were underweight or overweight or normal, whether their teeth needed the attention of a dentist, or whether their tonsils perchance had become affected. These went to the department on the order of their teachers and according to a prearranged schedule, to prevent confusion and useless duplication of effort.

Responsibility of Teacher

As stated earlier in this article, the teacher assumed full responsibility for the health program. The success of her work in this department is judged very largely by the results she achieved. Often they were given valuable aid and assistance in handling stubborn cases by pupils in the grades who had met all the requirements. Many times these boys and girls asked permission to send a committee from their own number to interest those parents who would not have certain defects corrected in their children. In practically every case success crowned their efforts and they returned to school with signed requests for typhoid, diphtheria, and smallpox inoculations, or with permits for the removal of defects.

In checking over the reports in faculty meeting as the year wore on, it appeared that it would be impossible to secure the necessary correction of defects or the required amount of dental work before the contest closed in March on account of the financial condition of a number of patrons. To meet this situation, faculty members obtained the co-operation of a local service club in furnishing glasses to those wholly unable to pay for them. The faculty itself contracted with a local dentist to give a part of his time exclusively to those school children. The local parent-teacher association financed a number of corrections in children whose parents were unable to pay. The faculty, in conjunction with the health committees from this organization, secured dates at the hospital for tonsil operations and other needed corrections, and provided transportation for all who needed to go.

Teachers whose rooms had met all the requirements for blue ribbons rendered valuable assistance in helping other faculty members who were not so fortunate. A weekly survey of accomplishments kept all informed of the progress, and each one knew just how many and which students in each grade had not met the requirements. The weekly summary sheet read regularly at faculty meeting was most interesting.

Awarding Honors at Close of Contest

At the close of the contest, all the children who had won their service bars were given permission to take part with some two thousand others from over the county in the annual blue ribbon parade, and to receive the honors, as well as the benefits, which come to those who have achieved this distinction.

The above description of the campaign for health in Crichlow Grammar School during the 1934–35 sessions is typical of many others in the county, and rather faithfully tells the story of the efforts there over a period of years. Interest has not waned. Instead it has seemed to increase each year. The results have been quite satisfactory. For instance, in the Crichlow

(Concluded on Page 81)

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IMPROVING SILENT READING IN THE HIGH SCHOOL

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SCHOOL-BUILDING CLEANING AND SANITATION

(Concluded from Page 35)

same time that the doormats and rugs are cleaned.

Disposal of Waste. All school waste should be removed and burned daily. The practice of bailing wastepaper is to be condemned because of the fire hazard unless a fireproof storeroom is available. The accumulations of wood shavings and sawdust in basement rooms is also a dangerous practice, for the same reason. Garbage cans that are not cleaned daily become the source of disagreeable odors and breeding places for flies. All waste should be burned, preferable in a chimney flue. Burning in a wire burner, on the school grounds, is objectionable because of the smoke and soot nuisance this method produces. Disagreeable odors are also produced by the smoldering material. Most engineers object to burning this material in the furnaces because it causes soot to form in the boiler flues, thereby lessening the efficiency of the furnaces, and necessitating more frequent cleaning of the flues. The chimney-flue method has not these objections and should be used.

Woodwork and Furniture

The best covering for all woodwork and furniture is varnish or a product having a varnish base. At the close of each school year the condition of the varnish should be inspected. If it has become "flat" through age or wear, revarnishing is necessary. Our experience has been that it is more economical to go over the woodwork each year, touching up the places that are flat, rather than to wait a period of years and then revarnish the entire building. Another plan that has much merit consists in taking several rooms each year for complete revarnishing, planning the program so as to make the complete round before too much deterioration has resulted. The length of time that that would be most economical, using this plan, will vary with the kind and quality of varnish used, the amount of humidity in the air, and the extent of wear to which the building is subjected. Dry air and direct sunlight will cause rapid deterioration. It is advisable that shades be lowered during vacation periods.

As a health measure it is necessary that school desks be thoroughly cleaned at the end of each school year, using a good germicide in the water. The desks should be revarnished periodically in order that their life may be prolonged. Owing to the heavy wear to which desks are subjected, the time between the varnishings will vary from two to five years.

It has not been the intention to make this discussion exhaustive, but rather suggestive of what should constitute a reasonably satisfactory program of janitor-engineer service. The practice described and the principles set forth are not the only ones that will give satisfaction, but he can recommend them to any school executive or janitor-engineer as having stood the test of several years of use. We cannot expect educational programs to function properly in an environment that is other than clean and sanitary.

Co-ordination of *School Planning* with *City Planning*[1]

Charles D. Anderson[2]

Most of the cities of the world have not been developed along any plan. They just grew up. Many cities remind us of a poorly planned house with many lean-tos. With the congestion of population and the increase in traffic hazards many communities have begun to realize the necessity of changing the older portions along orderly lines and planning for future growth and expansion. More than eight hundred cities and towns in America now have planning boards or agencies. It has been recognized by these communities that a well-planned city or town fosters a higher type of business and home development, stimulates civic pride through its attractiveness, and increases its efficiency and economy of governmental activities.

Many cities and towns which have adopted zoning regulations have no city or town plans. Judging by the experience in New Jersey, only about one fifth of the municipalities with zoning regulations have planning boards and city plans.

Every municipality should develop a master plan. This plan will include plans for streets, primary, secondary, local, parkways and boulevards, industrial areas, business and mercantile areas, residential areas, parks and recreational centers, civic centers, location of school sites and architectural control of buildings erected. No city plan is complete without zoning. Zoning is the ordinance of the governing body regulating the use of real property. It is the enforcement arm of city planning.

No city plan can be properly developed without the co-operation of the educational authorities. It is equally true that no proper development of school planning can be made without a comprehensive city plan. School planning is an integral part of city planning, as education is one of its most essential services. The proper location of school buildings on adequate sites is largely dependent upon the city plan with zoning requirements. With a city plan the educational authorities may act with greater assurance that their selection of a site and the erection of a building thereon will serve the school population around it for a considerable period.

There are many school buildings in this country which no longer serve their immediate neighborhoods due to the poor selection of sites, shifts of population, encroachment of factories and mercantile establishments. Many of them should be abandoned, but are continued, although not serving their immediate neighborhoods. The cost of erecting school buildings is too great to have their periods of usefulness shortened due to various causes which proper city planning could have eliminated. It is poor economy to erect costly buildings without the safeguards of a city plan and its zoning requirements.

In the selection of a site for the erection of a school building a number of factors must be taken into consideration.

The size and location of the site depends upon the density of population for the future as well as the present. The city plan determines whether a neighborhood will be made up of apartment houses, single or multiple houses. A neighborhood of single houses will not require as large a site as a neighborhood of multiple houses or apartments with accessibility the same. A city plan shows the possibilities of growth and the point of saturation.

The stability of the neighborhood is practically guaranteed in a city with a master plan and a zoning ordinance. The neighborhood will not change qualitatively or quantitatively. A school site would in most cases be centrally located in a neighborhood with a city plan. In a city without a plan the educational authorities would in all probability locate its school buildings according to the present needs rather than the future needs, which is unknown. The population for which a school is designed must remain around it for a considerable period, otherwise city planning and school planning would be worthless. There are many school buildings which do not service their immediate school population due to lack of stability of the neighborhood.

Accessibility of a site is an important factor in its selection. It is contrary to practice to require the small child to walk more than one-half mile to school. The school site should be practically in the center of its population.

A school site adjacent to a large park would not serve its population centrally.

The increase in motor-vehicle transportation necessitates the proper placing of a school building in relation to the traffic hazards. In the United States the number of children killed and injured indicate the need of careful selection of the school site in reference to traffic hazards. Studying the street plans will show the traffic hazards which would confront the children. These traffic hazards should be decreased to a minimum. No school building should be located on a primary street, and if possible not on a secondary street, but on a local street. The building must be easily accessible to the secondary streets. Locating a school building on a local street will reduce to a minimum the traffic noises and hazards.

Traffic hazards should be decreased to a minimum at least for children in the primary schools. We have in New Jersey a community, Radburn, which has practically eliminated all traffic hazards. In this town every second or third street is not a major traffic artery. Only enough main traffic arteries have provided for actual needs. There has been deliberate planning to prevent through traffic from ever invading the residential areas. In this community all houses front on short dead-end streets and the interior of each block is set aside as a public park bordered by pedestrian walks and paths. The town is laid out in superblocks. The elementary-school district is made up of two or more of these superblocks with the school located centrally. No child needs to cross a single highway or major street to get to school or to the community playgrounds. Pedestrian underpasses or overpasses provide safe crossing facilities where school or play sites are on the other side of the traffic arteries. This community planning shows the possibilities for other communities.

NEEDED IMPROVEMENT IN SCHOOL-BUSINESS ADMINISTRATION

(Concluded from Page 16)

First, debt service is largely a resultant charge which in general increases about in proportion to the total amount of bonds and notes that are issued as the result of funding capital expenditures. Debt service charges result from more or better housing. Housing needs arise from the number of pupils and their location. In large cities location of pupils has been a most significant factor. Knowing full well that there is a traditional practice of building schools in the center of the residential districts, I am nevertheless reverting to the suggestion that it may profit those in communities where under restricted immigration and a falling birth rate, surplus classrooms now exist in the elementary school to study well the possible use of transportation. In many communities today the school plant may be used much more effectively than it is with a distinctly reduced burden on the taxpayer from capital and debt charges if the parents are willing to forego their century-old idea of school location.

FEDERAL AID FOR SCHOOL-BUILDING CONSTRUCTION

(Concluded from Page 26)

First, state and districts combined must furnish a certain proportion of the total cost of a state's program for any one year. The total contribution of each state and those of its districts which need buildings, may best be determined by the ratio of the state's wealth per unit of total plant-replacement need to the wealth per unit of need chosen as the point of equalization. If, for the sake of clarification, the ratio per unit of full plant-replacement need in a particular state to that of the wealth per unit of need at the point of equalization were .80, then this state and its districts combined might supply 80 per cent of the cost of the year's program and the government the balance, or 20 per cent.

Second, each state would be required to institute a plan of internal equalization for adjusting the tax load of the capital outlays of local districts. This would insure that the states assume the share of responsibility for participation in the plan. Otherwise many states would be tempted to distribute federal funds to local districts, but yet not contribute anything themselves.

Only the major elements of a federal-aid plan are discussed, as space forbids a complete presentation of the machinery required for such a plan. It is felt that in this plan the elements of sound procedure are available which would be adequate for a permanent national policy.

INITIAL STEPS IN A SCHOOL-HEALTH PROGRAM

(Concluded from Page 78)

School during the 1927–28 term 469, or 96 per cent, of the average daily attendance received blue ribbons. In 1928–29, this school secured 491 blue ribbons, or 97 per cent, of the average daily attendance. In 1929–30, with an average daily attendance of 456, the school showed 100 per cent. In 1930–31, there were 513 blue ribbons, or 100 per cent. During 1931–32, there were 522, or 99 per cent, and in 1932–33, 1933–34, 1934–35 the score showed 100 per cent each year, with an average daily attendance of 524, 530, 536, respectively. This means in brief that these pupils had been successfully inoculated against smallpox, diphtheria, and typhoid; that all remediable defects had been corrected; that they had fulfilled the requirements for health habits; and that they had met the demands of the school relating to schoolwork and discipline.

These figures give an idea of the effectiveness of a health effort in only one phase of the program. Its evaluation in terms of daily attendance, improvements in quantity and quality of schoolwork, or relationship to conduct and citizenship is another story.

PROGRESS OF CO-OPERATIVE STUDY OF SECONDARY-SCHOOL STANDARDS

(Concluded from Page 14)

rothers, University of Michigan, and J. T. Giles, Wisconsin State Department of Education; Northwest Association: Henry M. Hart, Lewis and Clarke High School, Spokane; Western Association: William M. Proctor, Stanford University.

The research staff is now engaged in preparing material, which will be submitted before Christmas to about three hundred school principals and other leaders in the field of secondary education for criticism and suggestion. It is expected that before the year is over a body of material will be developed, which will warrant experimental tryout in several hundred representative secondary schools.

It is not intended that uniform standards will be applied, but that flexibility will be promoted in different sections, and among different schools in the same state or section. Schools will not be expected to conform to one pattern but will be encouraged to develop progressive and better ways of attaining their objectives. It is the hope of the Committee to develop methods of identifying good secondary schools, which will emphasize the quality of the educational process, and the nature of the resultant product, rather than the machinery of the educational system.

---

[1]Abstract of an address before the National Association of Public-School Business Officials, Minneapolis, Minn., October 16, 1935.

[2]Assistant Commissioner of Education, State of New Jersey, Trenton, N. J.

After the Meeting

On Second Thought

A farmer visited his son's college. Watching students in a chemistry class, he was told they were looking for a universal solvent.

"What's that?" asked the farmer.

"A liquid that will dissolve anything."

"That's a great idea," agreed the farmer. "When you find it what are you going to keep it in?"—*Toronto Globe.*

It Was Unfair

Two boys who exasperated their teacher to the breaking point were asked to remain after class and write their names five hundred times.

After ten minutes, the one boy protested: "Teacher, this ain't fair. His name's Ed Ott and mine's Bartholomew Geissenheimer."

Complimentary!

"Robert," said the teacher, to drive home the lesson which was on charity and kindness, "if I saw a man beating a donkey and stopped him from doing so, what virtue would I be showing?"

"Brotherly love," said Bobby.

Forgetful as Ever

A college professor in an Indiana town rushed into a grocery just around the corner from the building in which he taught and began: "Say, my wife gave me a list of groceries to bring home, but I forgot and left the list in my desk. I am in a great hurry; will you please start putting up the order while I go back after the list?"—*Indianapolis News.*

Sedentary Life

In order to enlarge the children's vocabulary, a school teacher was in the habit of giving them a certain word and asking them to form a sentence in which that word occurred. One day she gave the class the word "notwithstanding." A bright-faced youngster held up his hand.

"Well, what is your sentence?" asked the teacher.

"Father wore his trousers out; but notwithstanding!"

Salvation

The father was reading the school report which had just been handed to him by his hopeful son. His brow was wrathful as he read: "English, poor; French, weak; mathematics, fair," and he gave a glance of disgust at the quaking lad. "Well, dad," said the son, "it is not as good as it might be, but have you seen that?" And he pointed to the next line, which read: "Health, excellent."—*American Boy.*

And Bill Collectors

Teacher: "Johnny, if your father could save one dollar a week for four weeks, what would he have?"

Modern child (promptly): "A radio, an electric refrigerator, a new suit, and a lot more furniture."

Modern Art Has Values

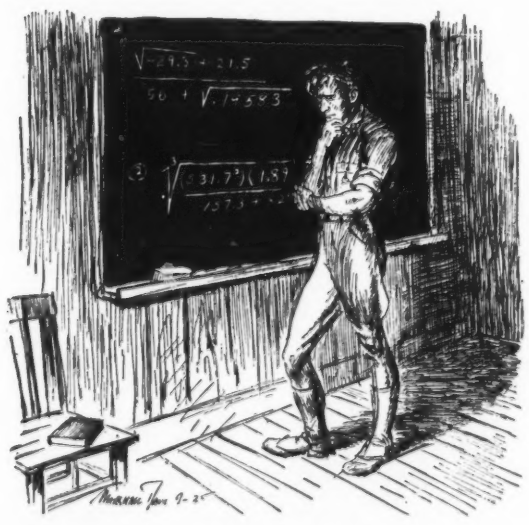
"Now, Billie," said the teacher, who had just read aloud the story of the hare and the tortoise, to a small lad who had paid scant attention while she was reading, "can you tell me why the tortoise won the race?"

"He won it," promptly replied Billie, "because he was streamlined."

A Mother's Complaint

A young CCC worker was returned to his home to recuperate from "acute nostalgia," which means simply severe homesickness.

Informed by letter of her son's ailment, his indignant mother filed claim against the corps for damages, declaring her boy never had trouble with nostalgia until he left home.



SCHOOL DAZE!
—*CCC Happy Days.*

Buyers' News

Spencer Lens Company Expands. The Spencer Lens Company, Buffalo, N. Y., has recently entered the field of opthalmic lenses. The American Optical Company has acquired an interest in the Spencer Lens Company, and the two firms will work co-operatively in the development of optical products, particularly microscopes, microtomes, and projection apparatus.

Death of Norman C. Miller. Ginn & Company, of Boston, Mass., have suffered the loss of a member of the firm in the recent death of Mr. Norman C. Miller, at Atlanta, Ga. Mr. Miller was a member of the firm from 1920 to 1935.

Changes in Lyon Officers. The Lyon Metal Products, Inc., Aurora, Ill., has recently announced the following elections by its board of directors:

Mr. B. L. Waters, formerly secretary, has been elected president, to fill the vacancy left by the death of Mr. F. S. Waters.

Mr. W. B. Brown, formerly treasurer, has been elected secretary-treasurer to fill the opening created by the resignation of Mr. B. L. Waters as secretary.

Mr. Frederick B. Heitkamp, formerly general sales manager, has been elected vice-president in charge of sales.

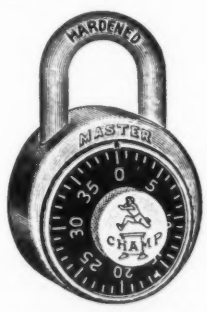
Mr. Earl D. Powers continues as vice-president and general manager.

Lyon Metal Products, Inc., are manufacturers of steel shelving, lockers, store fixtures, steel furniture, and other kindred products. They are represented with sales officers in all principal cities.

NEW PRODUCTS

New Master Combination Padlock. The Master Lock Company, Milwaukee, Wis., has announced a new combination "Champ" padlock for school lockers.

This "Champ" padlock is a result of four years' research and it requires no keys. Its security is due to the fact that it requires four-number dialing to open. After the shackle is turned, the lock can be reopened only by re-dialing.



THE NEW "MASTER" LOCK

The "Champ" padlock is strongly made and handsomely finished. All parts which easily get out of adjustment have been eliminated. The shackle is hardened chrome-nickle steel, saw- and fileproof. The lock is rustproof, the dial is of brass, and the outer case is of nickel silver in stain finish. The dial has a solid, embossed brass knob with a knurled edge.

Correspondence for information is solicited from school authorities.

New B. and L. Laboratory Microscopes. The Bausch & Lomb Optical Company, Rochester, N. Y., has issued a 28-page booklet, listing, describing, and offering applications of nine new laboratory microscopes, together with numerous accessories for use on these instruments.

These instruments represent the finest line of American-made microscopes for use on transparent or translucent specimens where vertical light is not required. The H type microscope is for use in laboratory work in educational institutions and is adaptable to all general-purpose work in the laboratory. The HA model, equipped with a mechanical stage, is used by physicians and medical students, and is intended to meet the requirements for medical schools. The HS type has a divisible body tube, plain stage, and condenser in rack and pinion substage so that the body is interchangeable at will. The HSA type is intended for milk-smear examination, has a removable mechanical stage, and a clear space for manipulating gross specimens. The HSE type has a vertical binocular body, plain stage, and condenser in rack and pinion substage, and may be obtained with or without mechanical stage. The F and FB types comprise a line of school microscopes which have been designed and built to satisfy a demand for an economical microscope for modern school instruction. The F type is an economical design, and is suitable for school work where there is no demand for fine adjustment. It has a standard ground glass filter for controlling the quality of the illumination.

A copy of the booklet will be sent to any school official upon request.

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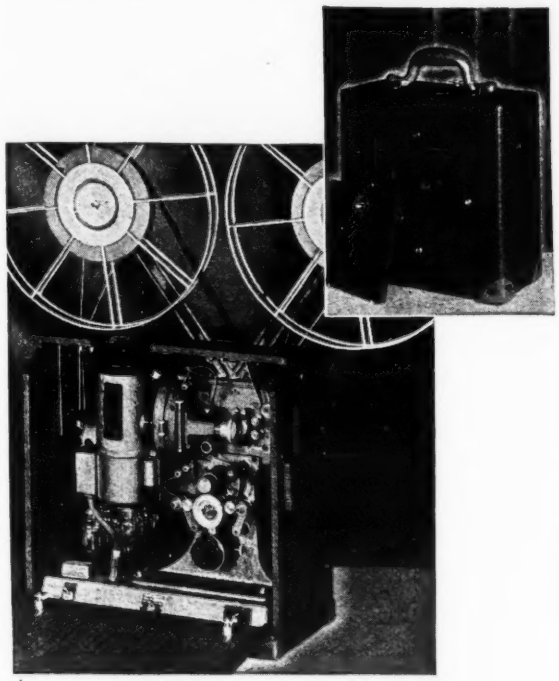
New Model 25 16-mm. Sound-on-Film Animatophone. The Victor Animatograph Corporation, Davenport, Iowa, has announced its new 16-mm. Model 25 Animatophone, a small and simple high-quality sound-picture reproducer, embodying mechanical and optical features that have made the Victor Model 24B the most widely used sound projector.

This latest model has been created to file a demand for an educational reproducer adapted to limited audiences.



THE NEW MODEL 25 ANIMATOGRAPH

The amplifier is of the three-stage type, using six tubes, and with undistorted output sufficient for audiences up to 200 people. It has a 500-watt, 110-volt lamp as standard equipment, a super hi-power lamphouse with ventilation, an operating lever to control sound speed and sound volume, and toggle switches to permit lamp, motor control, and amplifier power to be turned on or off separately as desired.

The Model 25 machine gives a satisfactory quality of reproduction within a low price range. Complete information and prices will be furnished upon request.

SCHOOL BUSINESS ON THE UPSWING

The general upward trend in the channe's of commerce and trade noted throughout the United States is also reflected in the school supply business. The school authorities buy more freely than they have for the past three years and in many instances the specifications call for a better quality of goods.

There is also a tendency to place an intelligent interpretation upon the practice of awarding contracts to the lowest responsible bidder. It has become clearer that responsib lity as far as manufacturer and distributor are concerned rests primarily on experience and length of service in providing school requirements.

Again, it is becoming more apparent that the manufacturer and dealer in school supplies and equipment must be in a posit on to offer a professional sales service in particular relation to the school use of the product. A mere buy and sale transaction by no means concludes the relations that must exist between the producer and purchaser. A co-operative sales att'tude must be manifested, which means that the manufacturer and dealer must bear in mind the interests of the consumer as well as his own.

The legitimate school-supply firm, having beh'nd it the experience and having built up a reputation for square dealing and honorable business methods primar'ly meets the requirement which recognizes the lowest responsible bidder.

The School-Construction Outlook

The school-bond sales for the first eight months of this year amount to $47,785,000. The number of school-construction projects number 1,944. There is a decrease in the total number of projects engaged in thus far this year over last. The number of projects for 1934 was 3,024, and for 1935, as above stated, 1,944.

At the same t'me, the difference between the value of construction for the two years is less marked. In 1934, the total value amounted to $86.812,695 and thus far in 1935 the figure was $84,228,699.

PWA School-Building Progress

The completion of school-building projects has had a direct favorable influence on equipment business dur'ng the summer months. However, most of the PWA projects are in the progress of construction. This forecasts a continued active demand for building equipment and supplies for the rest of 1935, and during the early part of 1936 most of these projects will be completed.

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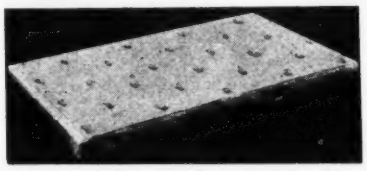

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CATALOGUE UPON REQUEST

An analysis of the progress of school projects as of August 1, 1935, for which PWA allotments have been made covering non-federal educational institutions and representing a total of $200,353,708 new construction, is as follows:

	*No. of Projects**	*Estimated Cost*	*Percentage*
Complete projects	349	$ 29,261.655	15
Projects under construction	423	127,277,296	63
Projects for which allotments have been made..	221	43,814,757	22
	993*	$200,353,708	100

*The number of projects indicate the number of building programs undertaken by the various school districts. The total number of school buildings is much larger.

SCHOOL-BOND SALES

During the month of September there was a considerable increase in the sales of school bonds for permanent improvements. The total reported for the Un'ted States was $17,701,573. During the same month there was a considerable reduction in the amount of refunding bonds and short-term notes. The sales amounted to only $2,207,965.

The largest issue for the month was in California, where $12,581,500 worth of permanent bonds were issued. New York was next with issues amounting to $1,381,000; Tennessee follows with $739,000; Texas issued $576,700; and Ohio, $521,500. Ohio was responsible for the largest amount of refunding operations with sales of $586,350. Pennsylvan'a was next with $455,000.

SCHOOL-BUILDING CONSTRUCTION

During the month of September, contracts for four new school buildings were let in the eleven states west of the Rockies. During the same month 464 projects, involving an estimated expenditure of $22,926,038, were reported in preliminary stages.

In 37 states east of the Rockies, Dodge reports that during the month of September a total of 206 educational buildings were put under contract. According to Dodge, the cost will be $4,267,900. The construction involves 836,200 square feet of floor area.

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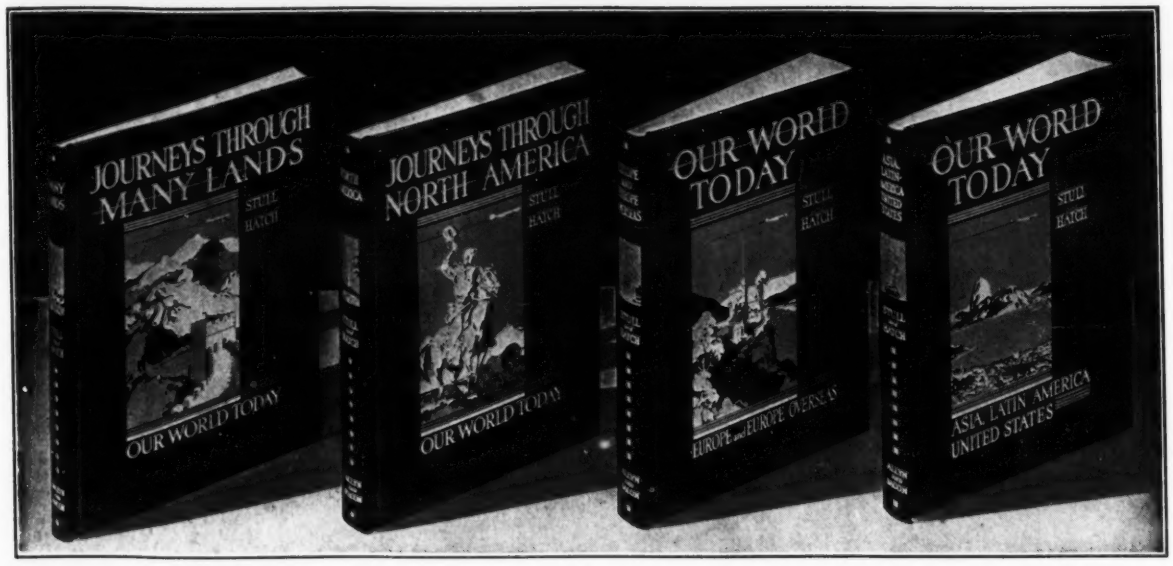

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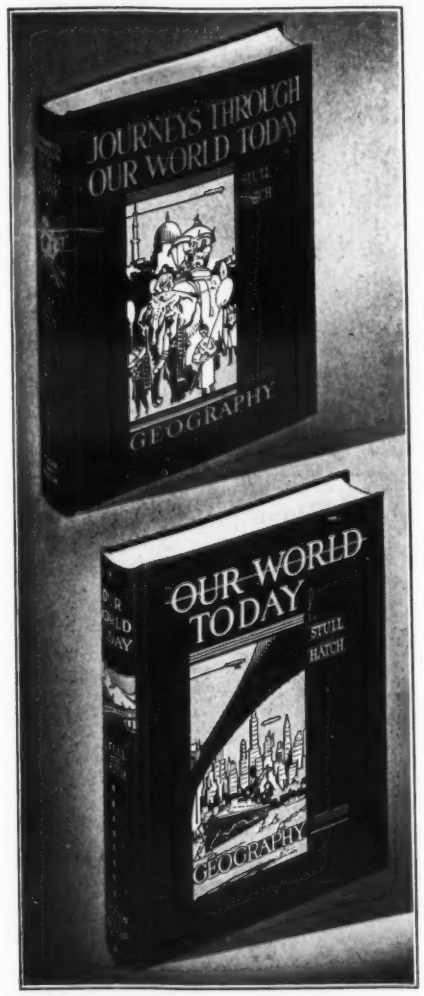

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